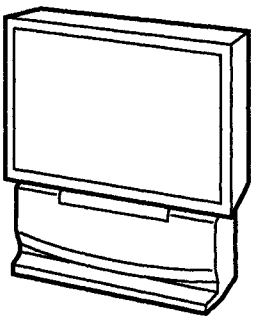
# SERVICE MANUAL

# RA-2 CHASSIS

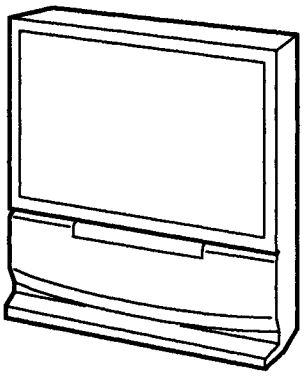
| MODEL | COMMANDER | DEST. | CHASSIS NO. |
|---|---|---|---|
| KP-46C36 | RM-Y136A | US | SCC-K90C-A |
| KP-48S35 | RM-Y136A | US | SCC-K90B-A |
| | | Canadian | SCC-N22A-A |
| KP-53S35 | RM-Y136A | US | SCC-K90A-A |
| | | Canadian | SCC-N22B-A |
| KP-61S35 | RM-Y136A | US | SCC-K90D-A |

| MODEL | COMMANDER | DEST. | CHASSIS NO. |
|---|---|---|---|

RM-Y136A



KP-46C36/48S35/53S35



KP-61S35

MICROFILM

## COLOR REAR VIDEO PROJECTOR

SONY®

※ Please file according to model size. ..... ■

46 48 53 61

## SPECIFICATIONS

**Projection system** 3 picture tubes, 3 lenses, horizontal in-line system

**Picture tube** 7 inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquid cooling system

**Projection lenses** High performance, large-diameter hybrid lens F1.1

**Screen size (measured diagonally)**

| | |
|---|---|
| KP-46C36 | 46 inches |
| KP-48S35 | 48 inches |
| KP-53S35 | 53 inches |
| KP-61S35 | 61 inches |

**Television system** American TV standards

**Channel coverage** VHF: 2 – 13 / UHF: 14 – 69 / CATV: 1 – 125

**Antenna** 75 ohm external antenna terminal for VHF/UHF

**Inputs/output**

VIDEO IN 1
S VIDEO (4-pin mini DIN):
Y: 1 Vp-p, 75-ohms unbalanced, sync negative
C: 0.286 Vp-p (Burst signal) 75 ohms
VIDEO (phono jack): 1 Vp-p, 75-ohms unbalanced, sync negative
AUDIO (phono jacks): 500 mVrms (100% modulation)
Impedance : 47 kilohms
VIDEO IN 2 (*for KP-48S35/53S35/61S35*)
VIDEO IN 3 (*for KP-46C36 only*)
VIDEO (phono jacks): 1 Vp-p, 75-ohms unbalanced, sync negative
AUDIO (phono jacks): 500 mVrms (100% modulation)
Impedance: 47 kilohms

MONITOR OUT
VIDEO (phono jack): 1 Vp-p, 75-ohms unbalanced, sync negative
AUDIO (phono jacks): 500 mVrms (100% modulation),
Impedance: 10 kilohms
AUDIO OUT (phono jacks): 500 mVrms
mVrms (100% modulation)
Impedance: 5 kilohms

**Speaker** Full range speaker 100 mm (3.9 inches) diameter

**Speaker output** 10 W × 2

**Power requirement**
120 V, 60 Hz

**Power consumption**
165 W
Standby mode: 3 W

| | Dimensions(W/H/D) | Mass |
|---|---|---|
| KP-46C36 | 1,066 × 1,306 × 563 mm (42 × 51 1/2 × 22 1/4 inches) | 65 kg (143 lbs 5 oz) |
| KP-48S35 | 1,106 × 1,337 × 571 mm (43 5/8 × 52 5/8 × 22 1/2 inches) | 67 kg (147 lbs 11 oz) |
| KP-53S35 | 1,218 × 1,413 × 614 mm (48 × 55 5/8 × 24 1/4 inches) | 69 kg (152 lbs 1 oz) |
| KP-61S35 | 1,338 × 1,506 × 642 mm (52 3/4 × 59 3/8 × 25 3/8 inches) | 122 kg (268 lbs 15 oz) |

**Supplied accessories**
Remote control RM-Y136A (1)
Size AA (R6) battery (2)

**Optional accessories**
U/V mixer EAC-66
Connecting cables RK-74A, VMC-810S/820S, YC-15V/30V, VMC-720M
High-contrast protective screen
SCN-46X1 (*For KP-46C36*)
SCN-48X2 (*For KP-48S35*)
SCN-53X2 (*For KP-53S35*)
SCN-61X2 (*For KP-61S35*)

Design and specifications are subject to change without notice.

**(CAUTION)**
**SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.**

**WARNING!!**
**AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.**
**THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.**

**SAFETY-RELATED COMPONENT WARNING!!**
**COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.**

**(ATTENTION)**
**APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.**

**ATTENTION!!**
**AFIN D'EVITER TOUT RESQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.**

**ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!**
**LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.**

# SAFETY CHECK-OUT
# (US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.

2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.

3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.

4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.

5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.

6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.

7. Check the B+ and HV to see if they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.

8. Check the metal trim, metallized knobs, screws, and all other exposed metal parts for AC leakage.
   Check leakage as described below.

## LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufactures' instructions to use these instruments.

2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

## HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

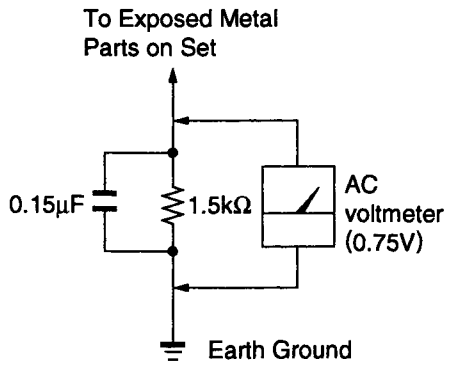



Fig. A. Using an AC voltmeter to check AC leakage.

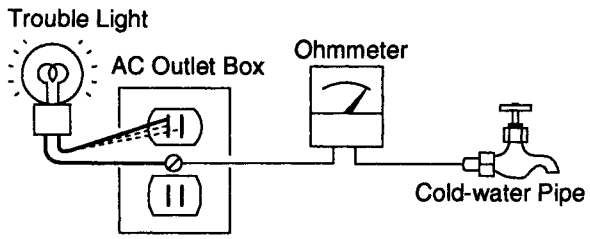



Fig. B. Checking for earth ground.

# TABLE OF CONTENTS


| Section | Title | Page |
|---|---|---|
| **1. GENERAL** | | |
| | Step 2 : Hookup | 5 |
| | Step 3 : Setting up the remote control | 8 |
| | Step 4 : Setting up the projection TV automatically (AUTO SET UP) | 9 |
| | Changing the menu language | 11 |
| | Watching the TV | 11 |
| | Watching two programs at one time - PIP | 12 |
| | Freezing the picture (FREEZE) | 13 |
| | Adjusting the picture (VIDEO) | 13 |
| | Adjusting the color temperature (TRINITONE) | 14 |
| | Selecting the video mode (VIDEO) | 14 |
| | Adjusting the sound (AUDIO) | 14 |
| | Using audio effect (SURROUND) | 15 |
| | Selecting stereo or bilingual programs (MTS) | 15 |
| | Setting the speaker switch (SPEAKER) | 15 |
| | Setting audio out (AUDIO OUT) | 16 |
| | Setting daylight saving time (DAYLIGHT SAVING) | 16 |
| | Setting the clock (CURRENT TIME SET) | 16 |
| | Setting the timer to turn the projection TV on and off (ON/OFF TIMER) | 17 |
| | Customizing the channel names (CHANNEL CAPTION) | 17 |
| | Blocking out a channel (CHANNEL BLOCK) | 18 |
| | Setting your favorite channels (FAVORITE CHANNEL) | 18 |
| | Setting video labels (VIDEO LABEL) | 18 |
| | Setting Caption Vision (CAPTION VISION) | 19 |
| | Operating video equipment | 19 |
| | Operating a cable box or DBS receiver | 20 |
| | Troubleshooting | 21 |
| | Index to parts and controls | 21 |
| **2. DISASSEMBLY** | | |
| 2-1. | Rear Board Removal | 23 |
| 2-2. | Chassis Assy Removal | 23 |
| 2-3. | Service Position | 23 |
| 2-4-1. | HA Board Removal (KP-46C36) | 24 |
| 2-4-2. | HA Board Removal (KP-48S35/53S35/61S35) | 24 |
| 2-5-1. | Beznet Assy Removal (KP-46C36/48S35/53S35) | 24 |
| 2-5-2. | Screen Frame Assy Removal (KP-61S35) | 24 |
| 2-6-1. | Mirror Cover Assy Removal (KP-46C36/48S35/53S35) | 25 |
| 2-6-2. | Reflection Mirror Removal (KP-61S35) | 25 |
| 2-7. | High-Voltage Cable Installation and Removal | 25 |
| 2-8. | Picture Tube Removal | 25 |
| 2-9-1. | Service stay Assy How to use and Carry Back Service stay Assy | 26 |
| 2-9-2. | Picture Tube Bracket Assy Removal | 26 |
| 2-9-3. | Seting of Service stay Assy (KP-46C36/48S35/53S35) | 27 |
| 2-9-4. | Install a Chassis Assy | 27 |
| **3. SET-UP ADJUSTMENTS** | | 29 |
| **4. SAFETY RELATED ADJUSTMENTS** | | 49 |
| **5. CIRCUIT ADJUSTMENTS** | | 52 |
| **6. DIAGRAMS** | | |
| 6-1. | Block Diagrams (1) | 56 |
| | Block Diagrams (2) | 59 |
| | Block Diagrams (3) | 61 |
| 6-2. | Frame Schematic Diagram | 63 |
| 6-3. | Circuit Boards Location | 66 |
| 6-4. | Printed Wiring Boards and Schematic Diagrams | 66 |
| | • A Board | 67 |
| | • HA, P Boards | 74 |
| | • ZR, ZG Boards | 77 |
| | • G Board | 83 |
| | • CR,CG,CB Boards | 87 |
| 6-5. | Semiconductors | 91 |
| **7. EXPLODED VIEWS** | | |
| 7-1. | Cover (KP-46C36/48S35/53S35) | 93 |
| 7-2. | Cover (KP-61S35) | 94 |
| 7-3. | Chassis | 95 |
| 7-4. | Picture Tube | 96 |
| **8. ELECTRICAL PARTS LIST** | | 97 |

# SECTION 1
# GENERAL

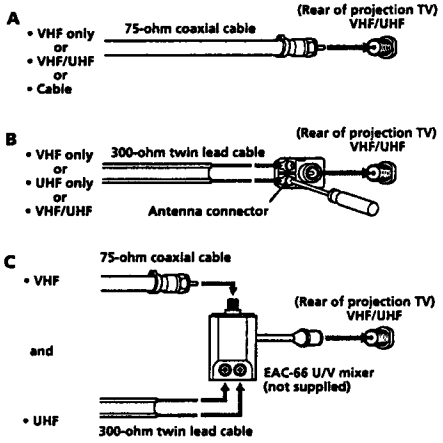
The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

## Step 2: Hookup

Although you can use either an indoor or outdoor antenna with your projection TV, we recommend that you connect an outdoor antenna or a cable TV system to get better picture quality.

### Connecting an antenna

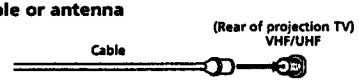
Connect your antenna cable to the VHF/UHF antenna terminal. If you cannot connect your antenna cable directly to the terminal, follow one of the instructions below depending on your cable type.




**Notes**
- Most VHF/UHF combination antennas have a signal splitter. Remove the splitter before attaching the appropriate connector.
- If you use the U/V mixer, snow and noise may appear in the picture when viewing cable TV channels over 37.

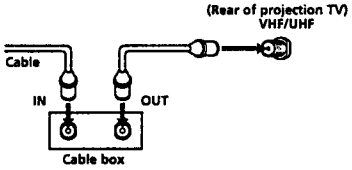
### Connecting an antenna/cable TV system without a VCR

**To cable or antenna**

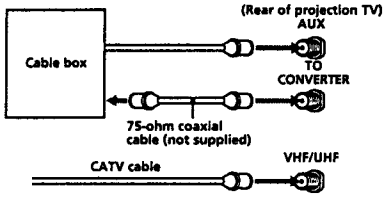



**To cable box**

If your cable company requires you to connect a cable box, make the connection as follows:




**To cable box and cable**

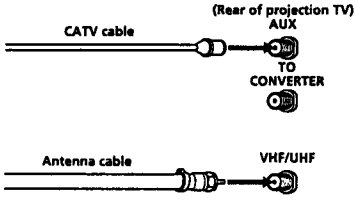



Pay cable TV systems use scrambled or encoded signals requiring a cable box* in addition to the normal cable connection.

* The cable box will be supplied by the cable company.

**Note**
- You cannot watch the signal through an AUX connector as a window picture.

**To cable and antenna**




**Note**
- Do not connect anything to the TO CONVERTER connector in this case.

### Connecting an antenna/cable TV system with a VCR

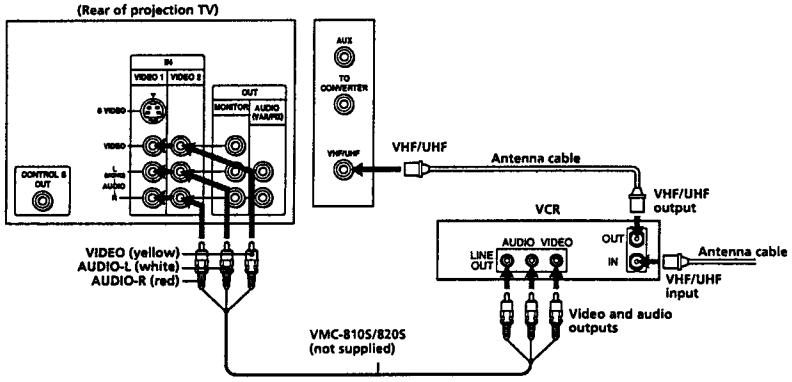
For details on connection, see your VCR instruction manual.
Before making the connection, disconnect the AC power cords of the equipment to be connected.

After making these connections, you will be able to do the following:
- View the playback of video tapes
- Record one TV program while viewing another program
- Watch two TV programs at once using PIP

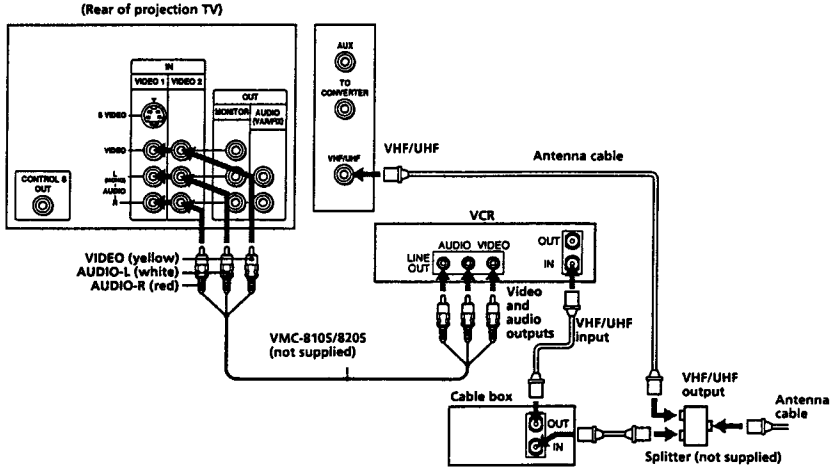
### To a conventional VCR

**Notes**
- For models KP-46C36, you can connect the audio and video outputs of the VCR to VIDEO 3 IN jacks instead of the VIDEO 2 IN jacks.
- To connect a monaural VCR, connect the audio output of the VCR to AUDIO-L (MONO) of VIDEO 1/2/3 IN on the projection TV.

**Without a cable box**



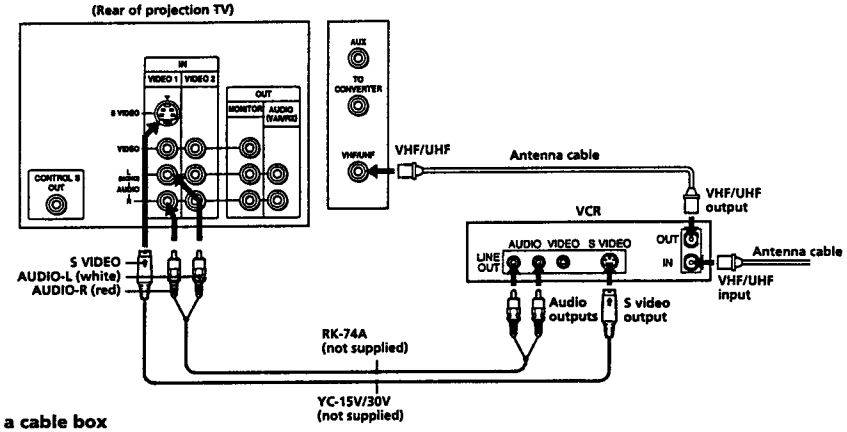

**With a cable box**



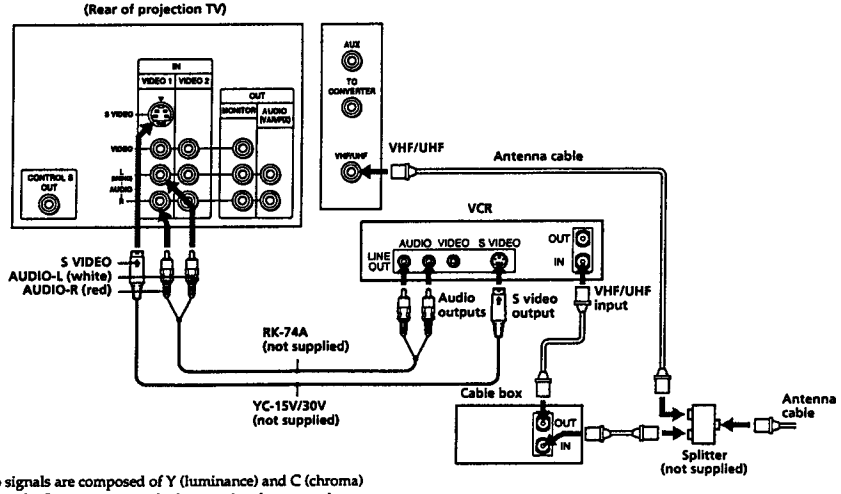
## To an S video equipped VCR

If your VCR has an S VIDEO output connector, make the following connections.
Whenever you connect the cable to the S VIDEO input connector, the projection TV automatically receives S video signals.

### Without a cable box




### With a cable box




**Note**
- Video signals are composed of Y (luminance) and C (chroma) signals. The S connection sends the two signals separately preventing degradation, and gives better picture quality compared to conventional connections.

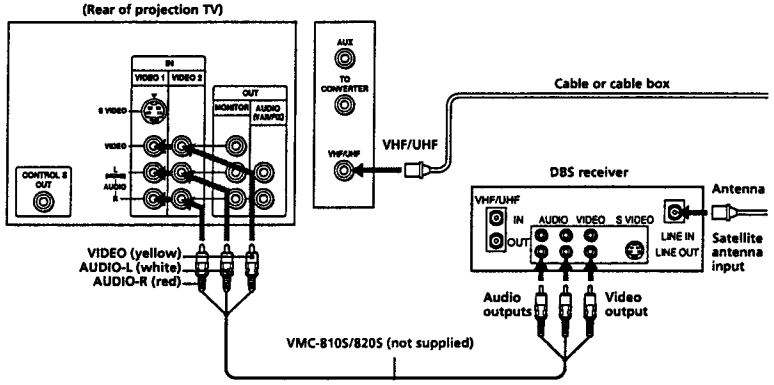


## Connecting a DBS receiver

For details on connection, see the instruction manual of the DBS (Digital Broadcasting Satellites) receiver.

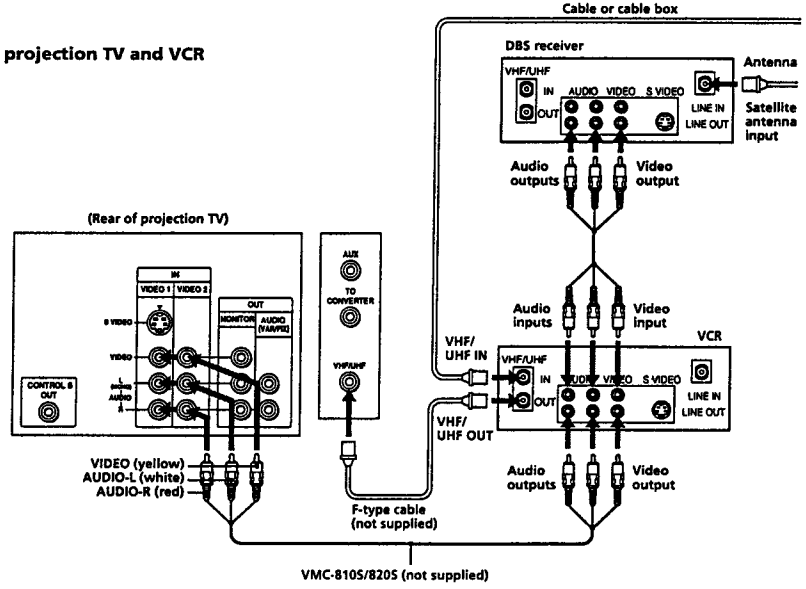
**Note**
- For models KP-46C36, you can connect the audio and video outputs of the VCR to VIDEO 3 IN jacks instead of the VIDEO 2 IN jacks.

### To a projection TV




**Note**
- You can use the S VIDEO connector or the composite video connector for the video connection.

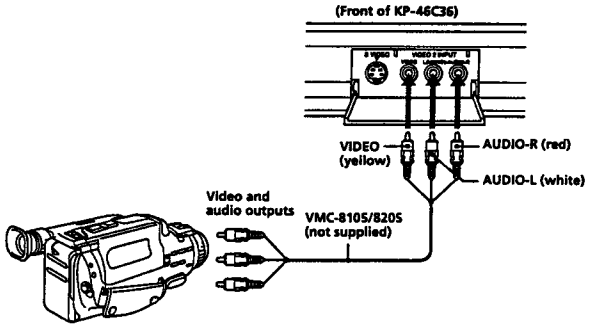
### To a projection TV and VCR



## Connecting a camcorder

■ *KP-46C36 only*

Use this connection to view a camcorder picture.

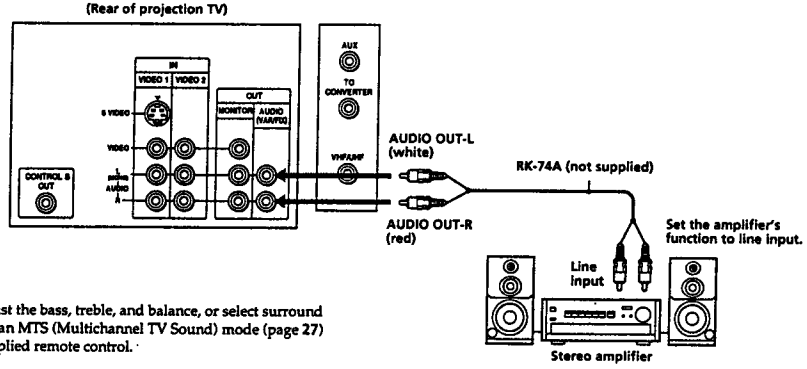



**Note**

- To connect a monaural camcorder, connect the audio output of the camcorder to AUDIO-L (MONO) of VIDEO 2 INPUT on the projection TV.

## Connecting an audio system

When connecting audio equipment, see page **28** for more information.



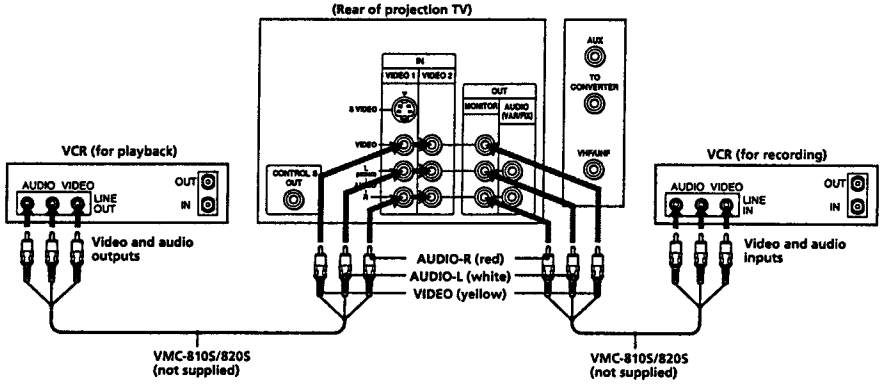

**Note**

- You can adjust the bass, treble, and balance, or select surround (page **26**) or an MTS (Multichannel TV Sound) mode (page **27**) with the supplied remote control.



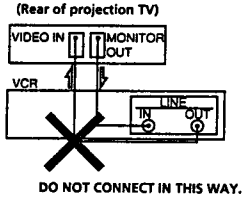
## Connecting two VCRs for tape editing using MONITOR OUT

You can record input images displayed on the screen. This type of connection should be used only when you connect from the line input of one VCR, and from the line output of a second VCR.




**Notes**

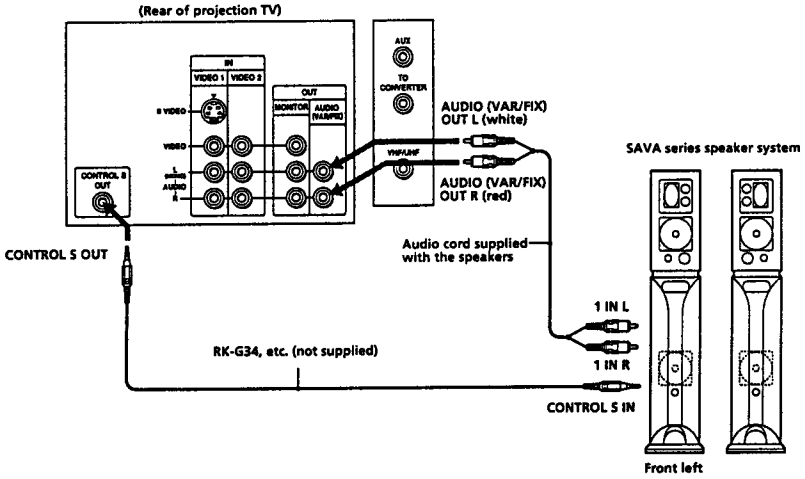
- Do not change the input signal while editing through MONITOR OUT, or the output signal will also change.
- You can use the S video jack to connect a VCR for playback and the composite video connector to connect a VCR for recording.
- For models KP-46C36, you can connect the audio and video outputs of the VCR to VIDEO 3 IN jacks instead of the VIDEO 2 IN jacks.
- When connecting a single VCR to the projection TV, do not connect the MONITOR OUT to the VCR's line input, while at the same time connecting from the projection TV's VIDEO IN connectors to the VCR's line output, as shown below.



## Connecting a Sony SAVA series speaker system

If you have a Sony SAVA series speaker system, connect your speakers to the AUDIO (VAR/FIX) OUT jacks on the rear of the projection TV with the audio cable supplied with the speakers. You can take advantage of the speakers' Dolby Pro Logic* surround system and super woofer mode, and control them with the supplied remote control. When connecting a Sony SAVA series speaker system, see page 27 for more information.

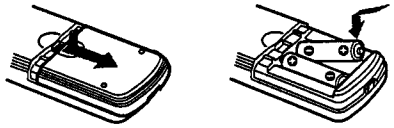
* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under Canadian patent number 1,037,877. "Dolby," the double-D symbol DD and "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.




# Step 3: Setting up the remote control

## Inserting batteries

Insert two size AA (R6) batteries (supplied) by matching the + and – on the battery to the diagram inside the battery compartment.



**Notes**

- Under normal conditions, batteries will last up to six months. If the remote control does not operate properly or the indicators of the buttons on the remote control do not light up, the batteries may be worn out. When replacing batteries, replace both of them with new ones.
- Do not mix old batteries with new ones or mix different types of batteries together.
- If the electrolyte inside the battery should leak, wipe the contaminated area of the battery compartment with a cloth and replace the old batteries with new ones. To prevent the electrolyte from leaking, remove the batteries when you don't plan to use the remote control for a long period of time.
- Do not handle the remote control roughly. Do not drop it, step on it, or let it get wet.
- Do not place the remote control in direct sunlight, near a heater, or where the humidity is high.

## Getting to know buttons on the remote control

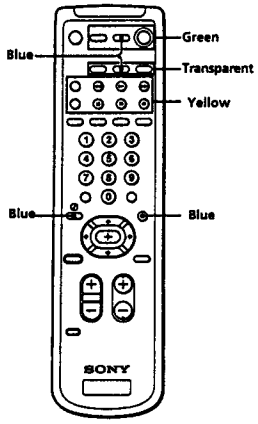
Names of buttons on the remote control are indicated in different colors to represent the available functions.

**Button color**

Transparent (light up) ..... TV/VCR/DBS/Cable box function buttons. Press the appropriate function button first to change the remote control's function.
Green ..... Buttons relevant to power operations.

**Label color**

White ..... TV/VCR/DBS/Cable box operation buttons.
Yellow ..... PIP operation buttons.
Blue ..... DBS operation buttons.

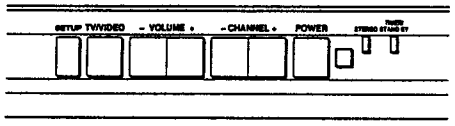


# Step 4: Setting up the projection TV automatically

## (AUTO SET UP)

You can set up your projection TV easily by using the AUTO SET UP feature. It presets all the receivable channels, adjusts the convergence and changes the on-screen menu language. To set up the projection TV manually, see "Adjusting convergence" (page 16), "Setting cable TV on or off" (page 17), "Presetting channels" (page 18) and "Changing the menu language" (page 18).
If the projection TV is set to a video input, you cannot perform AUTO SET UP. Press TV/VIDEO so that a channel number appears.

(Front of projection TV)

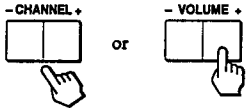



**Before you start using AUTO SET UP, be sure to connect the antenna or cable to the projection TV (see page 6).**

**1 Press POWER to turn the projection TV on.**

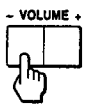
**2 Press SETUP on the front of the projection TV.**
AUTO SET UP screen appears.

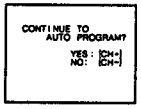
**3 Press CHANNEL +/– or VOLUME + to select the on-screen menu language.**
If you prefer Spanish or French to English, you can change the on-screen menu language.




All of the menus will be set to the factory preset condition in the selected language.

**4 Press VOLUME – to start AUTO SET UP.**



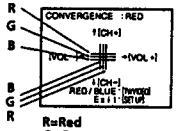




**5 Press CHANNEL + to preset channels.**

"AUTO PROGRAM" appears on the screen and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the following menu appears. If the projection TV receives cable TV channels, CABLE is set to ON automatically.

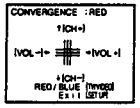
**To exit AUTO PROGRAM**
Press any button.

**6 Adjust convergence.**
(1) Press CHANNEL +.
The CONVERGENCE adjustment screen appears.

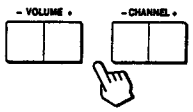


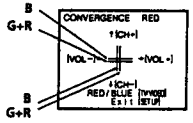

R=Red
G=Green
B=Blue

(2) Press TV/VIDEO to select RED or BLUE.



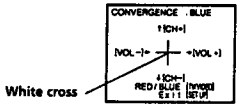

(3) Using CHANNEL +/– or VOLUME +/–, move the line until it converges with the center green line.




To move horizontal line up/down, press CHANNEL +/–.
To move vertical line right/left, press VOLUME +/–.

(4) Repeat steps (2) and (3) to adjust the other lines until all three lines converge and are seen as a white cross.



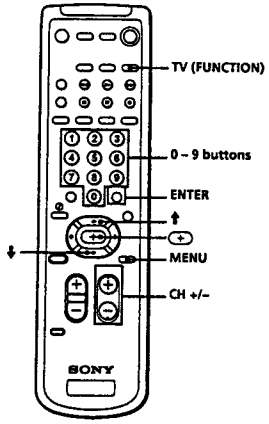

**Note**
- Using the AUX connector, press TV (black button) first and make sure that "AUX" is displayed beside the channel number on the screen. Then follow the steps 2 to 6 above to perform AUTO SET UP.

**To preview the main functions (DEMO)**
Press TV/VIDEO on the projection TV in step 4. The functions and menus are displayed one by one.

**To exit DEMO**
Press any button.

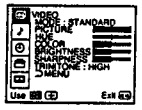
## Erasing or adding channels

After AUTO SET UP, you can erase unnecessary channels or add the channels you want. Preset channels during the day rather than late at night, when some channels may not be broadcasting.

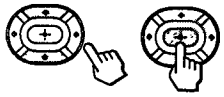


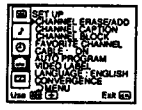

**1 Press TV (FUNCTION).**

**2 Press MENU.**
The main menu appears.

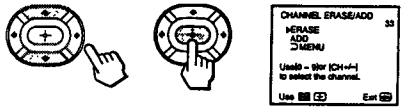



**3 Press ↑ or ↓ to select 🖶, and press ⊕.**
The SET UP menu appears.





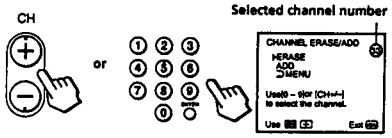
**4 Press ↑ or ↓ to select CHANNEL ERASE/ADD, and press ⊕.**
The CHANNEL ERASE/ADD menu appears.




**5 Erase and/or add channels:**

***To erase an unwanted channel***

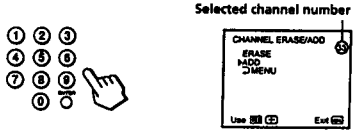
(1) Make sure the cursor (▶) is beside ERASE.
(2) Press CH +/– or the 0 – 9 buttons to select the channel you want to erase, and press ENTER.




(3) Press ⊕.
The "–" indication appears beside the channel number, showing that the channel is erased from the preset memory.

***To add a channel that you want***

(1) Press ↑ or ↓ to move the cursor (▶) to ADD.
(2) Press the 0 – 9 buttons to select the channel you want to add, and press ENTER.




(3) Press ⊕.
The "+" indication appears beside the channel number, showing that the channel is added to the preset memory.

**6 To erase and/or add other channels, repeat step 5.**

**7 Press MENU to return to the original screen.**

**Notes**

- If you erase or add a VHF or UHF channel, the cable TV channel with the same number is also erased or added, and vice versa.
- Erasing and adding channels is also available for the AUX input.

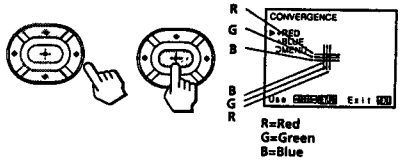
## Adjusting convergence (CONVERGENCE)

The projection tube image appears on the screen in three layers (red, green and blue). If they do not converge, the color is poor and the picture blurs. To correct this, adjust convergence.
You do not have to do this procedure if you perform AUTO SET UP (page 14). Do this procedure only when you want to adjust it manually.

**1 Press MENU.**

**2 Press ↑ or ↓ to select 🖶, and press ⊕.**

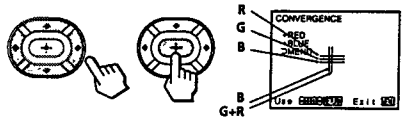
**3 Press ↑ or ↓ to select CONVERGENCE, and press ⊕.**
The CONVERGENCE adjustment screen appears.




**4 Press ↑, ←, ↓, or → to move the cursor (▶) to the symbol showing the line you want to adjust, and press ⊕.**

+RED : Red vertical and horizontal line (left/right/up/down adjustment)
+BLUE : Blue vertical and horizontal line (left/right/up/down adjustment)

**5 Press ↑, ←, ↓, or → to move the line until it converges with the center green line, and press ⊕.**




| To move | Press |
|---|---|
| Up | ↑ |
| Down | ↓ |
| Right | → |
| Left | ← |

**6 Repeat steps 4 and 5 to adjust the other lines until all three lines converge and are seen as a white cross.**

**7 Press MENU to return to the original screen.**

## Setting cable TV on or off

If you have connected the projection TV to a cable TV system, set CABLE to ON (the factory setting). If not, set CABLE to OFF.
You do not have to do this procedure if you perform AUTO SET UP (page 14). Do this procedure only when you want to set it manually.

**1 Press MENU.**

**2 Press ↑ or ↓ to select 🖶, and press ⊕.**

**3 Set CABLE to ON or OFF:**
(1) Press ↑ or ↓ to move the cursor (▶) to CABLE, and press ⊕.
(2) Press ↑ or ↓ to select ON or OFF, and press ⊕.

**4 Press MENU to return to the original screen.**

**Note**

- If CABLE appears in gray, the projection TV is set to a video input and you cannot select CABLE. Press TV (black button) so that a channel number appears.

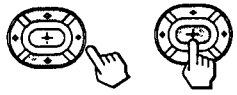
## Presetting channels

You can preset TV channels easily by using the AUTO PROGRAM feature.
You do not have to do this procedure if you perform AUTO SET UP (page 14). Do this procedure only when you want to set it manually.

**1 Press MENU.**

**2 Press ↑ or ↓ to select 🖴, and press ⊕.**

**3 Press ↑ or ↓ to select AUTO PROGRAM, and press ⊕.**



"AUTO PROGRAM" appears on the screen and the projection TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the lowest numbered channel is displayed.

**4 Press MENU to return to the original screen.**

**To exit AUTO PROGRAM**
Press any button.

**Notes**
- If the AUTO PROGRAM menu appears in gray, the projection TV is set to a video input and you cannot select AUTO PROGRAM. Press TV (black) button so that a channel number appears.
- Presetting channels is also available for the AUX input.

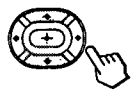
# Changing the menu language

If you prefer Spanish or French to English, you can change the menu language.
You do not have to do this procedure if you select the language during AUTO SET UP (page 14). Do this procedure only when you want to set it manually.

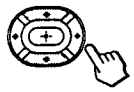
**1 Press MENU.**

**2 Press ↑ or ↓ to select 🖴, and press ⊕.**

**3 Press ↑ or ↓ to select LANGUAGE, and press ⊕.**



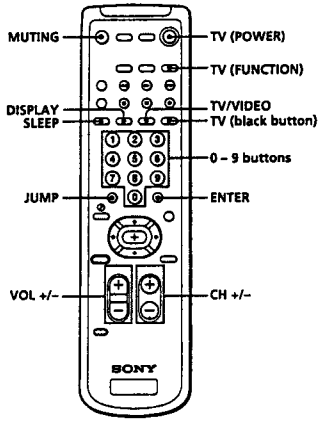
**4 Press ↑ or ↓ to select your favorite language, "ENGLISH", "ESPAÑOL," or "FRANÇAIS" and press ⊕.**



**5 Press MENU to return to the original screen.**

**Note**
- Certain parts of the Spanish or French menus remain in English.

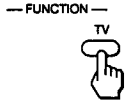
# Watching the TV




**1 Press TV (POWER) to turn on the projection TV.**
The TIMER/STANDBY indicator flashes until the picture appears.

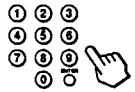
If "VIDEO" appears on the screen, press TV (black button) so that a channel number appears.

**2 Press TV (FUNCTION).**




Once you press TV (FUNCTION), the projection TV function is set unless another function button is pressed.

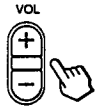
**3 Select the channel you want:**
***To select a channel directly***
Press the 0 – 9 buttons, and press ENTER.
For example, to select channel 10, press 1, 0 and ENTER.

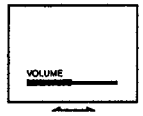


***To scan through channels***
Press CH +/– until the channel you want appears.

The channel can also be selected without pressing ENTER.

**4 Press VOL +/– to adjust the volume.**




## Switching quickly between two channels

You can use the JUMP button to switch or "jump" back and forth between two channels.

**Press JUMP.**

Pressing JUMP again switches the channel back to the one you selected last.

**Note**
- You cannot jump to channels you scanned through using the CH +/– buttons.

## Muting the sound

**Press MUTING.**
"MUTING" appears on the screen.

To restore the sound, press MUTING again, or press VOL +.

## Displaying on-screen information

**Press DISPLAY repeatedly until the desired display appears.**
Each time you press DISPLAY, the display changes as follows:

Status display* → XDS ON** → CC 1 ON*** → DISPLAY OFF

* Channel number, the current time, channel caption (if set), and MTS mode (if SAP is selected) are displayed. SAP indication disappears after three seconds.
** Some programs are broadcast with XDS (Extended Data Service) which shows a network name, program name, program type, program length, call letters, and time of the show. When you select XDS with the DISPLAY button, this information will be displayed on the screen if the broadcaster offers this service.
*** Some programs are broadcast with Caption Vision. When you select Caption Vision with the DISPLAY button, Caption Vision will be displayed on the screen if the broadcaster offers this service. (See page **34** for selecting Caption Vision.)

To cancel the display, press DISPLAY repeatedly until "DISPLAY OFF" appears. "DISPLAY OFF" goes off after three seconds.

## Setting the Sleep Timer

The projection TV stays on for the length of time you specify and then shuts off automatically.

**Press SLEEP repeatedly until the time (minutes) you want appears.**
Each time you press SLEEP, the time changes as follows:
30 → 60 → 90 → SLEEP OFF

To cancel the Sleep Timer, press SLEEP repeatedly until "SLEEP OFF" appears, or turn off the projection TV.

## Watching a video input picture

**Press TV/VIDEO repeatedly until the desired video input appears.**
Each time you press TV/VIDEO, the display changes as follows:

■ ***KP-41T35/46C36 only***

TV → VIDEO 1 → VIDEO 2 → VIDEO 3

■ ***KP-48S35/53S35/61S35 only***

TV → VIDEO 1 → VIDEO 2

To return to the TV picture, press TV (black button) so that a channel number appears.

## Changing the VHF/UHF input to the AUX input

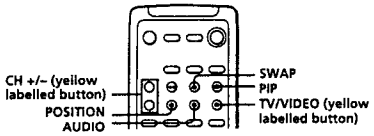
**Press TV (black button).**
"AUX" appears beside the channel number.

Pressing TV (black button) again switches back to the VHF/UHF input.



# Watching two programs at one time — PIP

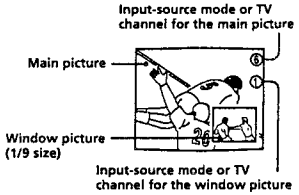
The Picture-in-Picture (PIP) feature allows you to watch both the main picture and a window picture simultaneously.



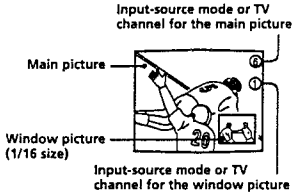

Use the yellow labelled buttons for PIP operations.

## Displaying a window picture

**Press PIP.**




**Press PIP again to display a smaller window picture.**

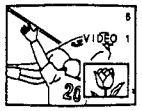



To remove the window picture, press PIP again.

**Note**
- The window picture may be affected by the condition of the main picture.

## Changing the window picture input mode

**Press TV/VIDEO (yellow labelled button) to select the input mode.**
Each time you press TV/VIDEO (yellow labelled button), "TV," "VIDEO 1," "VIDEO 2," and "VIDEO 3 (*for KP-46C36 only*)" appear in sequence.

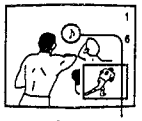



A window picture will appear in the same input mode as the last time you used PIP.

**Note**
- If you connect your VCR without a cable box, your PIP input source is a VCR. If you connect your VCR with a cable box, your PIP input source is a VCR or cable box.

## Listening to the sound of the window picture

**Press AUDIO.**
The ♪ display appears next to the PIP channel number for a few seconds, indicating that the window picture sound is being received.

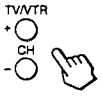


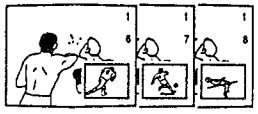
The sound of the window picture is received.

To restore the main picture sound, press AUDIO again. The ♪ display moves to the main picture channel number.

## Changing TV channels in the window picture

**Press CH +/– (yellow labelled button).**



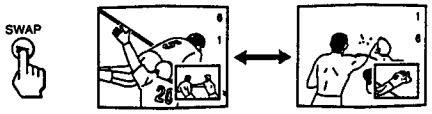



## Changing the position of the window picture

**Press POSITION.**
Each time you press POSITION, the window picture will move counterclockwise on the screen.

## Swapping the main and window pictures

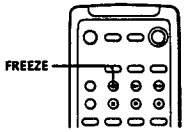
**Press SWAP.**
Each time you press SWAP, the images and sound from the main and window pictures switch places with another.




**Note**
- The channels being received through the AUX connector cannot be displayed as a window picture.

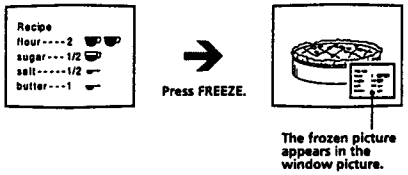
# Freezing the picture (FREEZE)

The FREEZE feature is useful when you want to write down an information such as a recipe from a cooking program, a displayed address, or a phone number.
The frozen picture changes as follows depending on whether the PIP function is used or not.



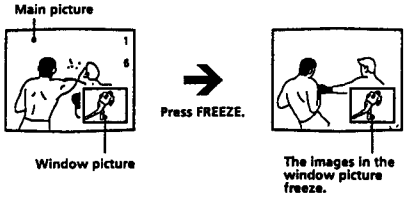

**Press FREEZE.**

### When the PIP function is not being used




To remove the frozen window picture, press FREEZE again.

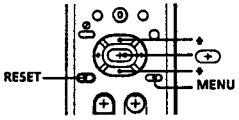
### When the PIP function is being used




To cancel the frozen window picture, press FREEZE again.

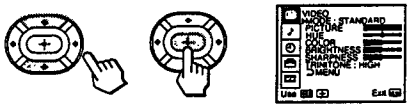
# Adjusting the picture (VIDEO)

When watching TV programs, you can adjust the picture to suit your taste.
You can adjust the picture of video input(s) as well.




**1 Press MENU.**

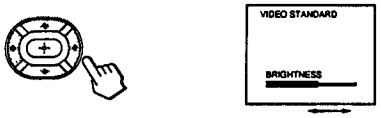
**2 Press ↑ or ↓ to select (III), and press ⊕.**



**3 Select the item you want to adjust.**
**For example:**
(1) To adjust the brightness, press ↑ or ↓ to move the cursor (▶) to BRIGHTNESS.

(2) Press ⊕.

**4 Adjust the selected item:**
(1) Press ↑, ←, ↓, or → to adjust the item.




(2) Press ⊕.
The new setting appears in the VIDEO menu.

For details on each item, see "Description of adjustable items" below.

**5 To adjust other items, repeat steps 3 and 4.**

**6 Press MENU to return to the original screen.**

### Description of adjustable items

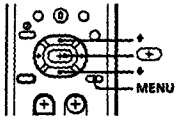
| Item | Press ← or → to | Press ↑ or ↓ to |
|---|---|---|
| PICTURE | Decrease picture contrast and give soft color. | Increase picture contrast and give vivid color. |
| HUE | Make picture tones become purplish. | Make picture tones become greenish. |
| COLOR | Decrease color intensity. | Increase color intensity. |
| BRIGHTNESS | Darken the picture. | Brighten the picture. |
| SHARPNESS | Soften the picture. | Sharpen the picture. |

### To restore the factory settings

Press RESET after displaying and selecting the VIDEO menu.
All of the settings are restored to the factory settings.

# Adjusting the color temperature (TRINITONE)

The TRINITONE feature controls the color temperature, permitting white balance preference adjustment without affecting skin tones.




**1 Press MENU.**

**2 Press ↑ or ↓ to select ▥ and press ⊕.**

**3 Press ↑ or ↓ to select TRINITONE and press ⊕.**

**4 Press ↑ or ↓ to select NTSC STD, MEDIUM, or HIGH and press ⊕.**

| Choose | To |
|---|---|
| HIGH | a cool (bluish) white. |
| MEDIUM | a neutral white. |
| NTSC STD | a warm (reddish) white. |

# Selecting the video mode (VIDEO)

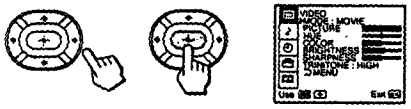
The video mode feature allows you to choose three different modes of picture settings. Choose the one that best suits the type of program that you want to watch.

**1 Press MENU.**

**2 Press ↑ or ↓ to select ▥, and press ⊕.**

**3 Press ↑ or ↓ to select MODE, and press ⊕.**

**4 Press ↑ or ↓ to select STANDARD, MOVIE, or SPORTS mode, and press ⊕.**



| Choose | To |
|---|---|
| STANDARD | Receive a standard picture. |
| MOVIE | Receive a finely detailed picture. |
| SPORTS | Receive a vivid, bright picture. |

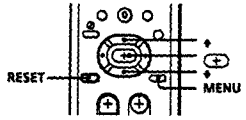
**5 Press MENU to return to the original screen.**

**Note**

- The settings for these modes can be adjusted in the VIDEO menu.

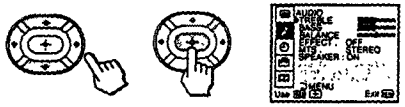
# Adjusting the sound (AUDIO)

You can adjust the quality of the TV sound to suit your taste. You can adjust the sound of the video input(s) as well.



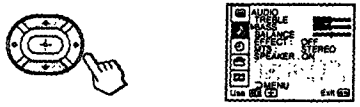

**1 Press MENU.**

**2 Press ↑ or ↓ to select ♪, and press ⊕.**

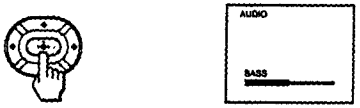


**3 Select the item you want to adjust.**
**For example:**

(1) To adjust bass, press ↑ or ↓ to move the cursor (▶) to BASS.

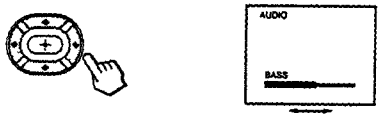


(2) Press ⊕.



**4 Adjust the selected item:**

(1) Press ↑, ←, ↓, or → to adjust the item.



(2) Press ⊕.
The new setting appears in the AUDIO menu.

For details on each item, see "Description of adjustable items" below.

**5 To adjust other items, repeat steps 3 and 4.**

**6 Press MENU to return to the original screen.**

### Description of adjustable items

| Item | Press ↑ or ← to | Press ↓ or → to |
|---|---|---|
| TREBLE | Decrease the treble response. | Increase the treble response. |
| BASS | Decrease the bass response. | Increase the bass response. |
| BALANCE | Emphasize the left speaker's volume. | Emphasize the right speaker's volume. |

### To restore the factory settings

Press RESET after displaying and selecting the AUDIO menu.
All of the settings are restored to the factory settings.

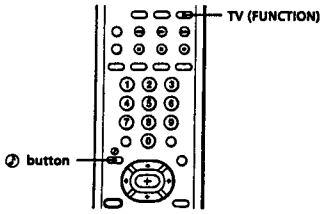
**Note**

- When SPEAKER (page 27) is OFF and AUDIO OUT (page 28) is in the FIXED condition, the volume, TREBLE, BASS, and BALANCE cannot be adjusted.

# Using audio effect (SURROUND)

The audio effect (SURROUND) feature simulates sound reproduction with the atmosphere of a movie theater or a concert hall. Audio effect is only effective for stereo programs.

## Using the ♪ (audio effect) button



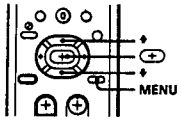

**1 Press TV (FUNCTION).**

**2 Press ♪.**

Each time you press the ♪ button, the display changes as follows:

SURROUND → SURROUND OFF

## Using the menu to set audio effect




**1 Press MENU.**

**2 Press ↑ or ↓ to select ♪, and press ⊕.**

**3 Press ↑ or ↓ to select EFFECT, and press ⊕.**

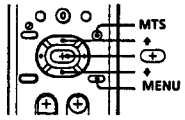
**4 Press ↑ or ↓ to select the audio effect mode, and press ⊕.**

**5 Press MENU to return to the original screen.**



# Selecting stereo or bilingual programs (MTS)

The Multichannel TV Sound (MTS) feature allows you to enjoy stereo sound or Second Audio Programs (SAP) of your choice. The initial setting is stereo sound (STEREO).




**Press MTS repeatedly to select STEREO, SAP, or MONO.**

STEREO→SAP→MONO

| Choose | To |
|---|---|
| STEREO | Listen to stereo sound. The STEREO indicator on the projection TV lights up when a stereo broadcast is received. |
| SAP | Listen to bilingual programs. There is no sound when the SAP signal is not broadcasting. |
| MONO | Listen to monaural sound. Reduce noise during stereo broadcasts. |

**Note**

- Stereo and SAP sounds are subject to program sources.

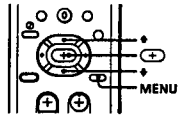
### To set MTS using the menu

1 Press MENU.
2 Press ↑ or ↓ to select ♪, and press ⊕.
3 Press ↑ or ↓ to select MTS, and press ⊕.
4 Press ↑ or ↓ to select STEREO, SAP, or MONO.
5 Press MENU to return to the original screen.

# Setting the speaker switch (SPEAKER)

You may switch off the projection TV speakers when, for example, you want to listen to the sound through a stereo system.

If you connect the Sony SAVA series speaker system to the AUDIO (VAR/FIX) OUT connectors, you can take advantage of the speakers' surround sound and super woofer mode. After making the connections (page 12), set SPEAKER to SAVA SPEAKER, then adjust SURROUND MODE or SUPER WOOFER MODE.

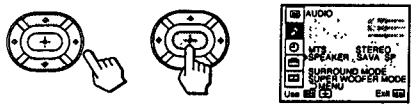



**1 Press MENU.**

**2 Press ↑ or ↓ to select ♪, and press ⊕.**

**3 Press ↑ or ↓ to select SPEAKER, and press ⊕.**

**4 Press ↑ or ↓ to select ON, OFF, or SAVA SP, and press ⊕.**



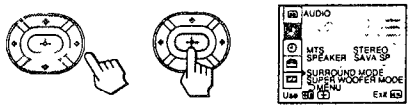
**5 Press MENU to return to the original screen.**

| Choose | To |
|---|---|
| ON | Listen to the sound from the projection TV. |
| OFF | Turn off the projection TV speaker sound and listen to the projection TV's sound solely through the audio system speakers. |
| SAVA SP | Turn off the projection TV speaker sound and listen to the projection TV's sound through the Sony SAVA series speaker system. You can adjust volume, muting, surround modes, and super woofer mode with the remote control supplied with the projection TV. |

### To select surround sound or super woofer mode of the SAVA speaker system

After setting SPEAKER to SAVA SP, follow the procedure below.

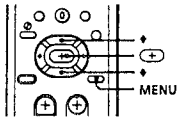
**Press ↑ or ↓ to select SURROUND MODE or SUPER WOOFER MODE, and press ⊕.**
For details on each option, refer to the operating instructions of the speaker system.




**Note**
- This feature is only for Sony SAVA speaker system with an operation capability for KP-46C36, KP-48S35, KP-53S35, and KP-61S35.

## Setting audio out (AUDIO OUT)

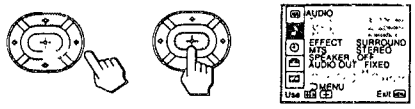
You can change AUDIO OUT to VARIABLE or FIXED when SPEAKER is set to OFF.
AUDIO OUT is variable when SPEAKER is set to ON.



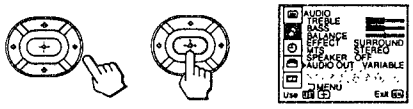

**1 Press MENU.**

**2 Press ↑ or ↓ to select ♪, and press ⊕.**

**3 Press ↑ or ↓ to select AUDIO OUT, and press ⊕.**




**4 Press ↑ or ↓ to select VARIABLE or FIXED, and press ⊕.**




**VARIABLE:** Sound output varied according to the projection TV settings. You can adjust the volume, bass, treble, and balance.
**FIXED:** Sound output is always fixed to a certain level. The volume, bass, treble, and balance are also fixed to the factory settings.

**5 Press MENU to return to the original screen.**

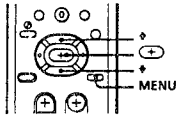
**Note**
- If AUDIO OUT appears in gray, set SPEAKER to OFF.

## Setting daylight saving time (DAYLIGHT SAVING)

If your area uses daylight saving time, change DAYLIGHT SAVING setting depending on the season, before setting the current time.

*Daylight saving start*
- After the first Sunday in April, set DAYLIGHT SAVING to YES. Current time setting (right column) automatically moves one hour ahead.

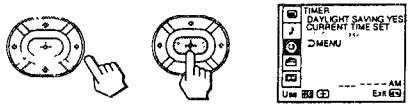
*Daylight saving end*
- After the last Sunday in October, set DAYLIGHT SAVING to NO. Current time setting automatically moves one hour back.



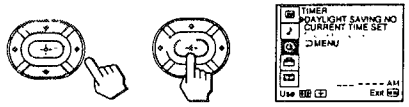

**1 Press MENU.**

**2 Press ↑ or ↓ to select ⏲, and press ⊕.**

**3 Press ↑ or ↓ to select DAYLIGHT SAVING, and press ⊕.**




**4 Press ↑ or ↓ to select YES or NO, and press ⊕.**

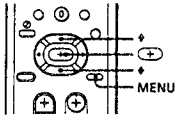



| Choose | To |
|---|---|
| YES | Set for daylight saving start. |
| NO | Set for daylight saving end. |

**5 Press MENU to return to the original screen.**

## Setting the clock (CURRENT TIME SET)

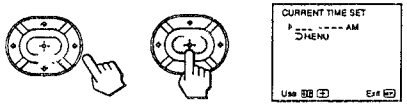
Setting the clock enables you to turn the projection TV on and off with the timer. Make sure to set daylight saving time first.




**1 Press MENU.**

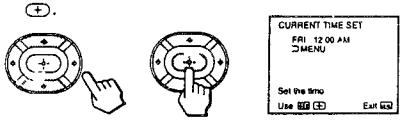
**2 Press ↑ or ↓ to select ⏲, and press ⊕.**

**3 Press ↑ or ↓ to select CURRENT TIME SET, and press ⊕.**

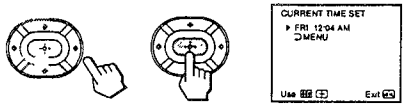



**4 Make sure the cursor (▶) is to the left of "--:-- AM," and press ⊕.**

**5 Set the current day of the week and time.**
(1) Press ↑ or ↓ to set the day of the week, and press ⊕.




(2) Set the hour and minutes in the same way as in step (1). When you press ⊕ after setting the minutes, the clock starts.

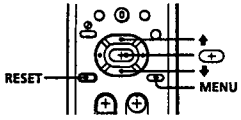



**6 Press MENU to return to the original screen.**

# Setting the timer to turn the projection TV on and off

## (ON/OFF TIMER)

You can set the projection TV to turn on and off at the times you specify. Make sure the clock is set correctly. If it is not, set the clock first (page 29).




**1 Press MENU.**

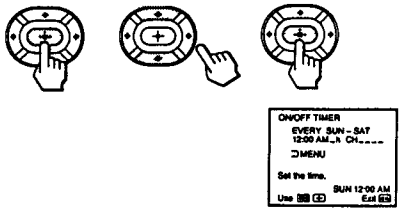
**2 Press ↑ or ↓ to select ⏲, and press ⊕.**

**3 Press ↑ or ↓ to select ON/OFF TIMER, and press ⊕.**

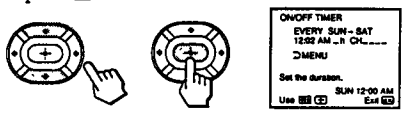
**4 Press ⊕ and enter the ON/OFF TIMER setting.**

(1) Press ↑ or ↓ to set the day(s), and press ⊕.

Each time you press ↑ or ↓, the days cycle as follows:
EVERY SUN–SAT→EVERY MON–FRI→ SUNDAY→...→SATURDAY→EVERY SUNDAY→...→EVERY SATURDAY




(2) Press ↑ or ↓ to set the time (hour then minutes) that you want to turn on the projection TV, and press ⊕.




(3) Press ↑ or ↓ to set the time duration, and press ⊕.

Each time you press ↑, the time duration increases by one hour up to a maximum of six hours.

(4) Press ↑ or ↓ to select the channel, and press ⊕.

The TIMER indicator on the projection TV lights up.

**5 To set the other program, press ⊕, and repeat step 4.**

**6 Press MENU to return to the original screen.**

One minute before the projection TV turns off, the message "TV will turn off soon." is displayed on the screen.

### To cancel the timer

In step 3 or 4, press RESET.

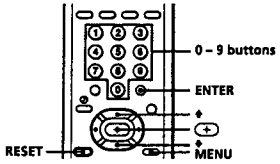
### Note

- If you unplug the projection TV or a power interruption occurs, the ON/OFF TIMER setting will be erased. Reset the current time, then set the timer.

# Customizing the channel names

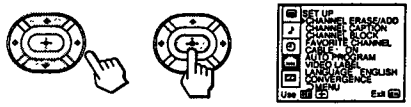
## (CHANNEL CAPTION)

You can add a caption for up to 12 channels. This feature allows you to easily identify which channel you are watching. You can make your own caption.

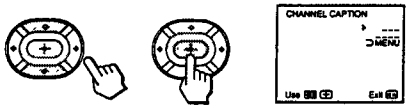



**1 Press MENU.**

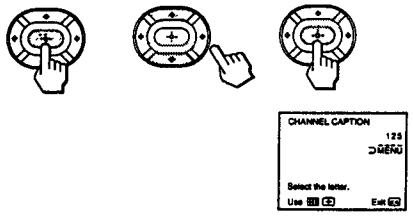
**2 Press ↑ or ↓ to select 🖴, and press ⊕.**




**3 Press ↑ or ↓ to select CHANNEL CAPTION, and press ⊕.**




**4 Press ⊕ and press ↑ or ↓ to select the channel that you want to caption, and press ⊕.**

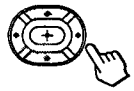



**5 Enter the letters (up to four) to caption the channel:**

(1) Press ↑ or ↓ to select the first letter.

Each time you press ↑ or ↓, the letter changes as follows:

0...9←→A...Z←→&./_(blank space)



(2) Press ⊕.

(3) Repeat steps (1) and (2) to select the remaining letters, and press ⊕.

**6 Repeat steps 4 and 5 to caption other channels.**

**7 Press MENU to return to the original screen.**

After you customize the channel, the channel caption appears green.

### To erase a caption

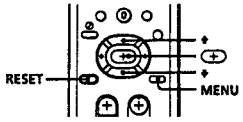
In step 5, press RESET.

### Notes

- If the CHANNEL CAPTION menu appears in gray, the projection TV is set to a video input, and you cannot select CHANNEL CAPTION. Press TV (black button) so that a channel number appears.
- If more than 90 seconds elapse after you press a button, the menu disappears automatically.
- The channel caption feature is not available for the AUX input.

# Blocking out a channel (CHANNEL BLOCK)

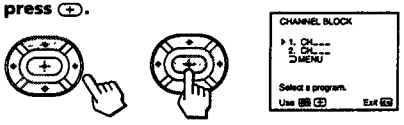
The channel block feature allows you to prevent children from watching unsuitable programs. You can block out two channels.



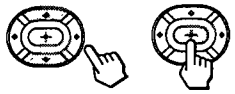

**1 Press MENU.**

**2 Press ↑ or ↓ to select 🖴, and press ⊕.**

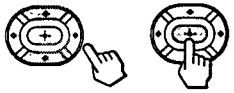
**3 Press ↑ or ↓ to select CHANNEL BLOCK, and press ⊕.**




**4 Press ↑ or ↓ to select program 1 or 2, and press ⊕.**



**5 Press ↑ or ↓ to select the channel which you want to block out, and press ⊕.**



**6 Press MENU to return to the original screen.**

When you select the blocked channel, the message "BLOCKED" appears on the screen.

**To cancel a CHANNEL BLOCK setting**

In step 4 or 5, press RESET.

**Note**

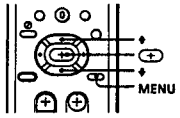
- Once you use CHANNEL BLOCK, Caption Vision and XDS of the blocked channel and the selected channel output from MONITOR OUT are also blocked out.



# Setting your favorite channels (FAVORITE CHANNEL)

The favorite channel feature allows your projection TV to memorize your favorite channels easily.
If you set to AUTO, the last five channels you selected with the 0 – 9 buttons are automatically set as your favorite channels. If you want to input your own selection of channels, set to MANUAL.

## Setting your favorite channels




**1 Press MENU.**

**2 Press ↑ or ↓ to select 🖴, and press ⊕.**

**3 Press ↑ or ↓ to select FAVORITE CHANNEL, and press ⊕.**

**4 Press ⊕ and press ↑ or ↓ to select AUTO or MANUAL, and press ⊕.**

If you select AUTO, skip steps 5 and 6.
The last five channels you selected with the 0 – 9 buttons are automatically set as your favorite channels.

If you select MANUAL, the favorite channel numbers become white, indicating that favorite channels can be entered.

**5 Press ↑ or ↓ to select a favorite channel number, and press ⊕.**

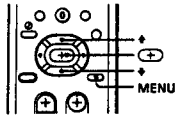
**6 Press ↑ or ↓ to select the channel that you want to set as your favorite channel, and press ⊕.**

**7 Press MENU to return to the original screen.**

**Notes**

- If the FAVORITE CHANNEL menu appears in gray, the projection TV is set to a video input and you cannot select FAVORITE CHANNEL.
- If more than 90 seconds elapse after you press another button, the menu disappears automatically.
- The favorite channel feature is not available for the AUX input.

## Selecting your favorite channel

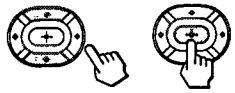



**1 Press ⊕.**

The FAVORITE CHANNEL menu appears.

**2 Press ↑ or ↓ to select the favorite channel you want to watch, and press ⊕.**

The selected channel appears on the screen.

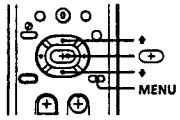


**To cancel the FAVORITE CHANNEL menu**

Press ↑ or ↓ to select "Exit," and press ⊕.

# Setting video labels (VIDEO LABEL)

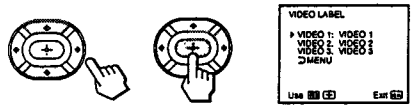
The video label feature allows you to label each input mode so that you can easily identify the connected equipment. For example, you can label VIDEO 1 as VHS.




**1 Press MENU.**

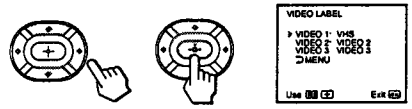
**2 Press ↑ or ↓ to select 🖴, and press ⊕.**

**3 Press ↑ or ↓ to select VIDEO LABEL, and press ⊕.**



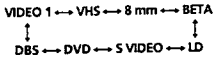

**4 Press ↑ or ↓ to select the input mode you want to label, and press ⊕.**

**5 Press ↑ or ↓ to select the label, and press ⊕.**

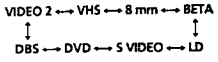


Each time you press ↑ or ↓, the label changes as follows:

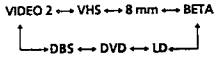
**VIDEO 1** *(for all models)*



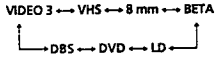

**VIDEO 2** *(for KP-46C36 only)*




**VIDEO 2** *(for KP-48S35/53S35/61S35 only)*




**VIDEO 3** *(for KP-46C36 only)*

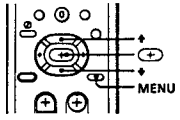



**6 Repeat steps 4 and 5 to label other input modes.**

**Note**
- If more than 90 seconds elapse before you press another button, the menu disappears automatically

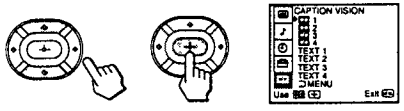
# Setting Caption Vision (CAPTION VISION)

Some programs are broadcast with Caption Vision. To display Caption Vision, select either CC1, CC2, CC3, CC4, TEXT1, TEXT2, TEXT3, or TEXT4 from the menu. CC1, CC2, CC3, or CC4 shows you on-screen version of the dialogue or sound effects of a program. (The mode should be set to CC1 for most programs.) TEXT1, TEXT2, TEXT3, or TEXT4 shows you on-screen information presented using either half or the whole screen. It is not usually related to the program.




**1 Press MENU.**

**2 Press ↑ or ↓ to select CC, and press ⊕.**




**3 Press ↑ or ↓ to select the caption type, and press ⊕.**

**4 Press MENU to return to the original screen.**

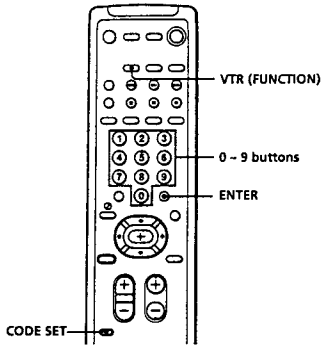
**To display Caption Vision**
Press DISPLAY (See page 20 for details.)

**Notes**
- Poor reception of TV programs can cause errors in Caption Vision and XDS.
  Captions may appear with a white box or other errors instead of a certain word.
- XDS, Caption Vision, and the status display cannot be used at the same time.
- For details on XDS, see page 20

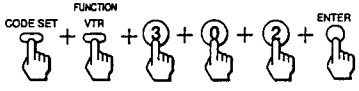
# Operating video equipment

You can use the supplied remote control to operate Sony or non-Sony video equipment that has an infrared remote sensor. For this operation, set the manufacturer's code number.

## Setting the manufacturer's code




**Press the CODE SET, VTR (FUNCTION), and 0 – 9 buttons to enter the manufacturer's code number (see the chart on page 35-36), then press ENTER.**
**For example, to operate a Sony 8 mm VCR, press CODE SET, VTR (FUNCTION), 3, 0, 2, and ENTER.**




**VCR manufacturer code numbers**

| Manufacturer | Code number |
|---|---|
| Sony | 301, 302, 303 |
| Aiwa | 338 |
| Audio Dynamic | 314, 337 |
| Bell & Howell (M. Wards) | 330, 343 |
| Brocsonic | 319 |
| Canon | 309, 308 |
| Citizen | 332 |
| Craig | 315, 302, 332 |
| Curtis Mathis | 304, 338, 309 |
| Daewoo | 341, 312, 309 |
| DBX | 314, 336, 337 |
| Dimensia | 304 |
| Emerson | 319, 320, 316, 317, 318 |
| Fisher | 330, 334, 335, 333 |
| Funai | 338 |
| General Electric | 329, 304, 309 |
| Goldstar | 332 |
| Hitachi | 306, 304, 305 |
| Instant Replay | 309, 308 |
| JC Penny | 309, 305, 304, 330, 314, 336, 337 |
| JVC | 314, 336, 337 |
| Kenwood | 314, 336, 332, 337 |
| LXI (Sears) | 332, 305, 333, 334, 330, 335 |
| Magnavox | 308, 309 |
| Marantz | 314, 336, 337 |
| Marta | 332 |
| Memorex | 309, 335 |
| Minolta | 305, 304 |
| Mitsubishi/MGA | 323, 324, 325, 326 |
| Multitech | 325, 338, 321 |
| NEC | 314, 336, 337 |
| Olympic | 309, 308 |
| Panasonic | 308, 309, 306, 307 |
| Pentax | 305, 304 |
| Philco | 308, 309 |
| Philips | 308, 309 |
| Pioneer | 308 |
| Quasar | 308, 309 |
| RCA/PROSCAN | 304, 305, 308, 309, 311, 312, 313 |
| Realistic | 309, 330, 328, 335, 324, 338 |
| Sansui | 314 |
| Singer | 315 |
| Samsung | 322, 313, 321 |
| Sanyo | 330, 335 |
| Scott | 312, 313, 321, 335, 323, 324, 325, 326 |
| Sharp | 327, 328 |
| Shintom | 315 |
| Signature 2000 (M. Wards) | 338, 327 |
| Sylvania | 308, 309, 338 |
| Symphonic | 338 |
| Tashiro | 332 |
| Tatung | 314, 336, 337 |
| Teac | 314, 336, 338, 337 |
| Technics | 309, 308 |
| Toshiba | 312, 311 |
| Wards | 327, 328, 335, 331, 332 |
| Yamaha | 330, 314, 336, 337 |
| Zenith | 331 |

### MDP manufacturer code numbers

| Manufacturer | Code number |
|---|---|
| Sony | 701 |
| Kenwood | 707 |
| Magnavox | 703 |
| Maranz | 702 |
| Mitsubishi | 702 |
| Panasonic | 704 |
| Philips | 703 |
| Pioneer | 702 |
| RCA | 702 |
| Sanyo | 706 |
| Sharp | 705 |
| Yamaha | 703 |

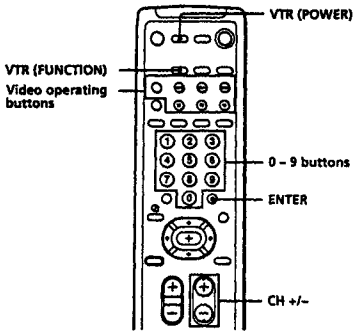
**Notes**

- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied remote control. This is because your equipment may use a code that is not included with this remote control. In this case, please use the equipment's own remote control unit.
- The code numbers for Sony equipment are assigned at the factory as follows:

| | |
|---|---|
| VHS VCR | 301 (preset code for the supplied remote control) |
| 8 mm VCR | 302 |
| Beta, ED Beta VCRs | 303 |

- Whenever you remove the batteries — to replace them, for example — if too much time is taken, the code number may revert to the factory setting and must be reset.

## Operating video equipment




**Use the video operating buttons on the remote control to operate the video equipment. Press VTR (FUNCTION) before operating the video equipment.**

| Operating a VCR | Buttons on the remote control |
|---|---|
| To turn on or off | Press VTR (POWER). |
| To select a channel directly | Press the 0 – 9 buttons. |
| To change channels | Press CH +/–. |
| To record | Press ► while pressing ●. First release ►, then release ●. |
| To play | Press ►. |
| To stop | Press ■. |
| To fast forward | Press ►►. |
| To rewind the tape | Press ◄◄. |
| To pause | Press II. To resume normal playback, press again. |
| To search the picture forward or backward | Press ►► or ◄◄ during playback. To resume normal playback, release the button. |
| To change input mode | Press TV/VTR. |

| Operating an MDP | Buttons on the remote control |
|---|---|
| To turn on or off | Press VTR (POWER). |
| To play | Press ►. |
| To stop | Press ■. |
| To pause | Press II. To resume normal playback, press again. |
| To search the picture forward or backward | Keep pressing ►► or ◄◄ during playback. To resume normal playback, release the button. |
| To search the chapter forward and backward | Press CH +/–. |

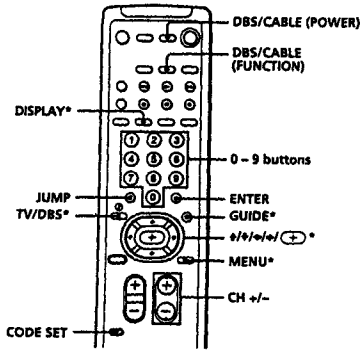
**Note**

- If the video equipment does not have a certain function, the corresponding button on this remote control will not operate.



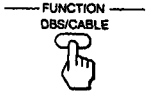
# Operating a cable box or DBS receiver

You can program the supplied remote control to operate a cable box or DBS receiver. Follow the procedures below to set the manufacturer's code number in the remote control.

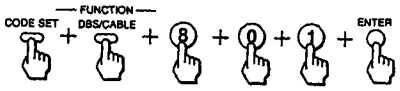



* The TV/DBS, GUIDE, DISPLAY, ↑/↓/←/→/⊕, and MENU buttons can be used only with a DBS receiver.

**1 Turn off the equipment you want to set up, and press DBS/CABLE (FUNCTION).**




**2 Press the CODE SET, DBS/CABLE (FUNCTION), and 0 – 9 buttons to enter the manufacturer's code number (see the chart on the right column), then press ENTER. For example, to program your remote control to operate a Sony DBS receiver, press CODE SET, DBS/CABLE (FUNCTION), 8, 0, 1, and ENTER.**




**3 Press DBS/CABLE (POWER) to turn on the cable box or DBS receiver.**

**4 Use the cable box/DBS control buttons to check if the code number works.**
For example, to operate a cable box or DBS receiver, you can use the DBS/CABLE (POWER), JUMP, CH +/–, 0 – 9 and ENTER buttons.

**Note**

- If the cable box or DBS receiver does not have a certain function, the corresponding button on this remote control will not operate.

**To operate the projection TV**
Press TV (FUNCTION). Then use the projection TV control buttons to control the projection TV.

**For more details on operating the cable box or DBS receiver**
Refer to the operating instructions that come with the equipment.

**If the remote control doesn't work**

- First, try repeating the setup procedures using the other codes listed for your equipment.

### Manufacturer code numbers (cable box)

| Manufacturer | Code number |
|---|---|
| Hamlin/Regal | 222, 223, 224, 225, 226 |
| Jerrold/G. I. | 201, 202, 203, 204, 205, 206, 207, 208, 218 |
| Oak | 227, 228, 229 |
| Panasonic | 219, 220, 221 |
| Pioneer | 214, 215 |
| Scientific Atlanta | 209, 210, 211 |
| Tocom | 216, 217 |
| Zenith | 212, 213 |

### Manufacturer code numbers (DBS receiver)

| Manufacturer | Code number |
|---|---|
| Sony | 801 (preset code for the supplied remote control) |
| RCA | 802 |

**Notes**

- If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some rare cases, your equipment may use a code that is not provided with this remote control and you may not be able to operate your equipment with the supplied remote control. In this case, use the equipment's own remote control unit.
- Whenever you remove the batteries — to replace them, for example — if too much time is taken, the code numbers may revert to the factory setting and must be reset.

# Troubleshooting

If the problem persists after trying the methods below, contact your nearest Sony dealer.

**No picture (screen not lit), no sound**
- ➡ Make sure the power cord is connected securely.
- ➡ Operate with the buttons on the projection TV.
- ➡ Insert the batteries in the remote control with the correct polarity.
- ➡ Replace the batteries with new ones if they are weak.
- ➡ Check to see if the TV/VIDEO setting is correct: when watching TV, set to TV, and when watching video tapes, set to VIDEO1, 2, or 3 (*for KP-41T35 only*).
- ➡ Try another channel. It could be station trouble.
- ➡ Perform AUTO SET UP again using the SETUP button to return to the factory preset condition. (page 14)

**Poor or no picture (screen lit), good sound**
- ➡ Adjust PICTURE in the VIDEO menu. (page 23)
- ➡ Adjust BRIGHTNESS in the VIDEO menu. (page 23)
- ➡ Adjust convergence. (page 16)
- ➡ Check antenna/cable connections. (page 6)
- ➡ Perform AUTO SET UP again using the SETUP button to return to the factory preset condition. (page 14)
- ➡ Remove objects from the front of the projection TV.

**Good picture, no sound**
- ➡ Press MUTING so that "MUTING" disappears from the screen. (page 19)
- ➡ Check the MTS setting in the AUDIO menu. (page 27)
- ➡ Make sure SPEAKER is set to ON in the AUDIO menu. (page 27)
- ➡ Perform AUTO SET UP again using the SETUP button to return to the factory preset condition. (page 14)

**No color**
- ➡ Adjust the COLOR in the VIDEO menu. (page 23)
- ➡ Confirm that black and white program is not being broadcast.
- ➡ Perform AUTO SET UP again using the SETUP button to return to the factory preset condition. (page 14)

**Only snow and noise appear on the screen**
- ➡ Check the CABLE setting in the SET UP menu. (page 17)
- ➡ Check the antenna/cable connections. (page 6)
- ➡ Make sure the channel is broadcasting programs.
- ➡ Press TV (black button) to change the input mode. (page 20)

**Dotted lines or stripes**
- ➡ Adjust the antenna.
- ➡ Move the projection TV away from noise sources such as cars, neon signs, and hair-dryers.

**Double images or ghosts**
- ➡ Use a highly directional outdoor antenna or a cable (when the problem is caused by reflections from nearby mountains or tall buildings).

**Cannot operate menu**
- ➡ If the item you want to choose appears in gray, you cannot select it. Press TV/VIDEO correctly.
- ➡ Check the CABLE setting in the SET UP menu. (page 17)

**Cannot receive upper channels (UHF) when using an antenna**
- ➡ Make sure CABLE is OFF in the SET UP menu. (page 17)
- ➡ Use AUTO PROGRAM to add receivable channels that are not presently in projection TV memory. (pages 14, 18)

**Cannot receive any channels when using cable TV**
- ➡ Make sure CABLE is ON in the SET UP menu. (page 17)
- ➡ Use AUTO PROGRAM to add receivable channels that are not presently in projection TV memory. (pages 14, 18)

**Remote control does not operate**
- ➡ Batteries could be weak. Replace the batteries. (page 13)
- ➡ Make sure the projection TV's power cord is connected securely to the wall outlet.
- ➡ Press TV (FUNCTION) when operating your projection TV.
- ➡ Are fluorescent lights too close to the projection TV? Move them at least 3-4 feet away from the projection TV.

**Cannot gain enough volume when using a cable box**
- ➡ Increase the volume at the cable box. Then press TV (FUNCTION) and adjust the projection TV's volume.

**The projection TV needs to be cleaned**
- ➡ Clean the projection TV with a soft dry cloth. Never use strong solvents such as thinner or benzine, which might damage the finish of the cabinet.

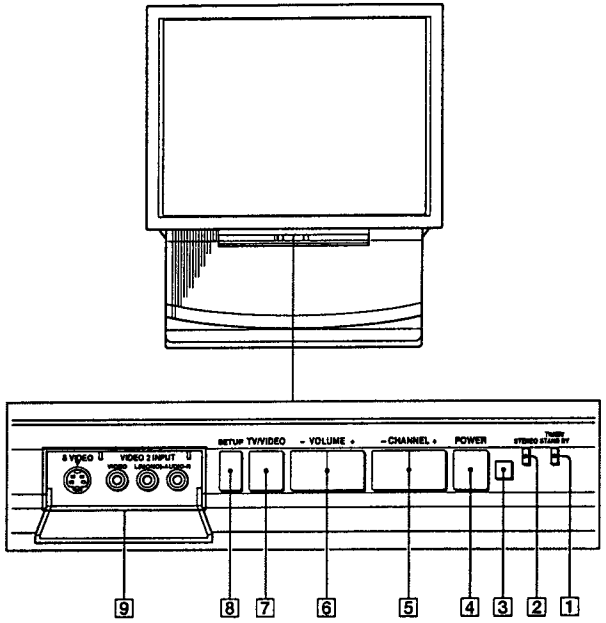




# Index to parts and controls

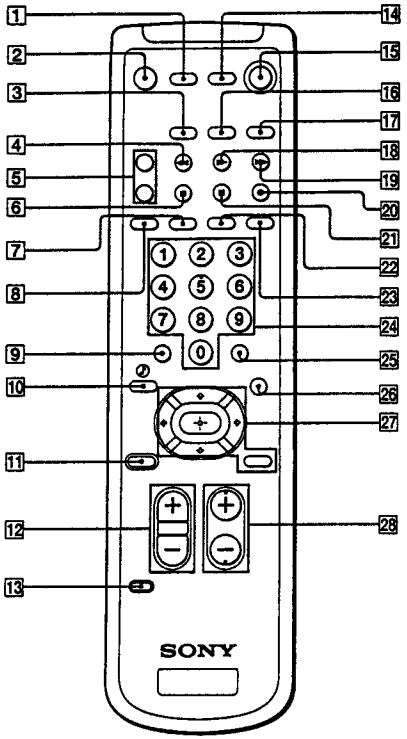
This section briefly describes the buttons and controls on the projection TV and on the Remote control. For more information, refer to the pages next to each description.

## Projection TV — Front




1. TIMER/STANDBY indicator (pages 19, 30)
2. STEREO indicator (page 27)
3. Remote sensor
4. POWER switch (page 14)
5. CHANNEL +/– buttons (page 14)
6. VOLUME +/– buttons (page 14)
7. TV/VIDEO button (page 14, 15)
8. SETUP button (page 14)
9. S VIDEO/VIDEO 2 INPUT (VIDEO/AUDIO L(MONO)/R) jacks (*for KP-46C36 only*) (page 10)

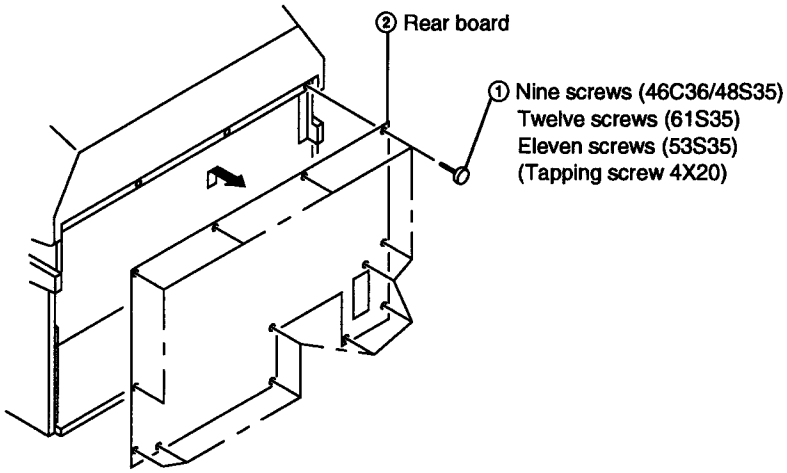
## Remote control



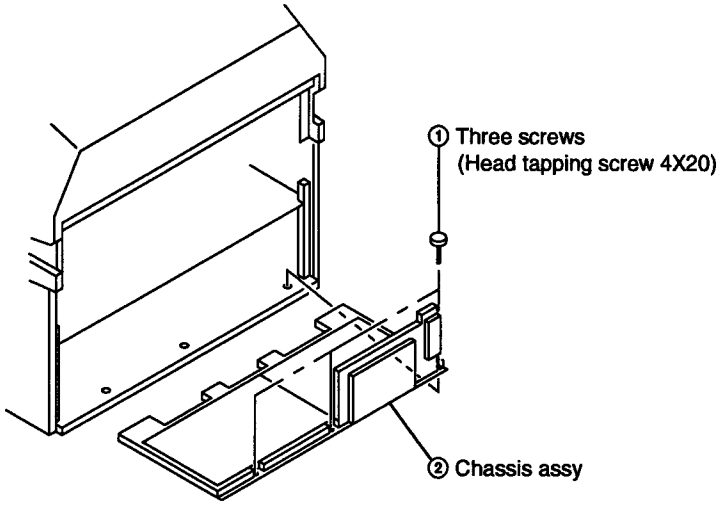

1 VTR (POWER) switch (page 36)
2 MUTING button (page 19)
3 VTR (FUNCTION) button (page 35)
4 FREEZE button (page 22)
5 TV/VTR CH +/– buttons (Yellow labelled button) (page 21)
6 POSITION button (page 22)
7 DISPLAY button (page 20)
8 SLEEP button (page 20)
9 JUMP button (page 19)
10 TV/DBS button (page 26, 37)
11 RESET button (page 23)
12 VOL (volume) +/– buttons (page 19)
13 CODE SET button (page 35)
14 DBS/CABLE (POWER) switch (page 37)
15 TV (POWER) switch (page 19)
16 DBS/CABLE (FUNCTION) button (page 37)
17 TV (FUNCTION) button (pages 15, 19)
18 SWAP button (page 22)
19 PIP button (page 21)
20 TV/VIDEO button (yellow labelled button) (page 21)
21 AUDIO button (page 21)
22 TV/VIDEO button (page 20)
23 TV button (black button) (page 20)
24 0 – 9 buttons (page 16)
25 ENTER button (page 16)
26 MTS/GUIDE button (page 27, 37)
27 Menu operation buttons (page 15)
MENU button
↑/←/↓/→/ buttons
button
28 CH (channel) +/– buttons (pages 16, 19)

# SECTION 2
# DISASSEMBLY

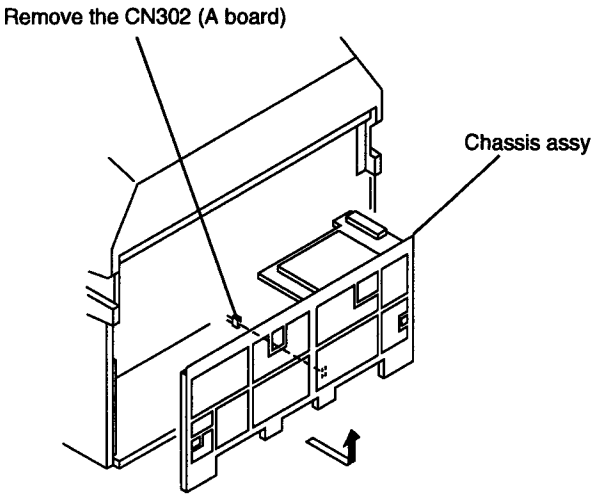
## 2-1. REAR BOARD REMOVAL



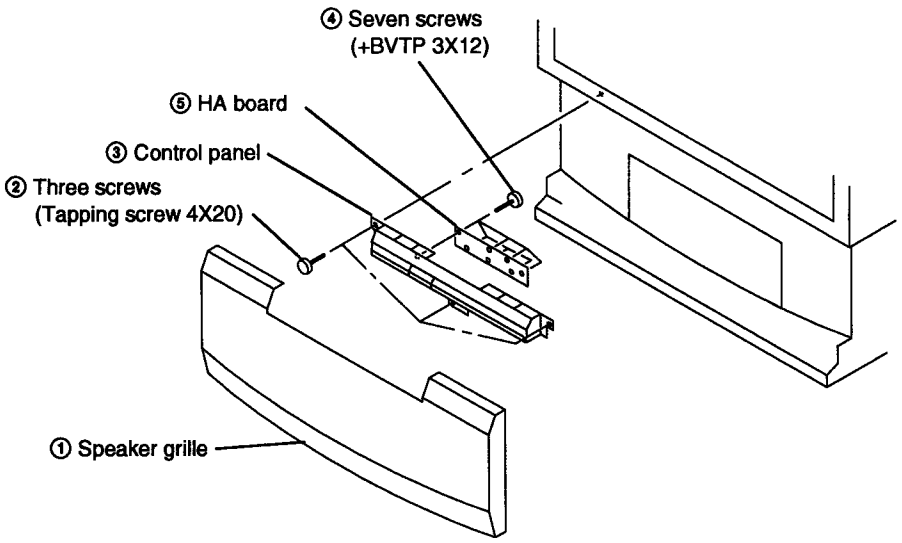

## 2-2. CHASSIS ASSY REMOVAL



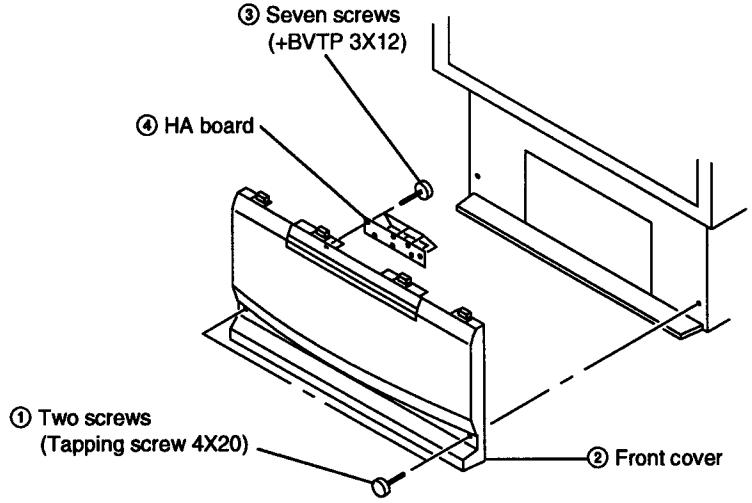

## 2-3. SERVICE POSITION



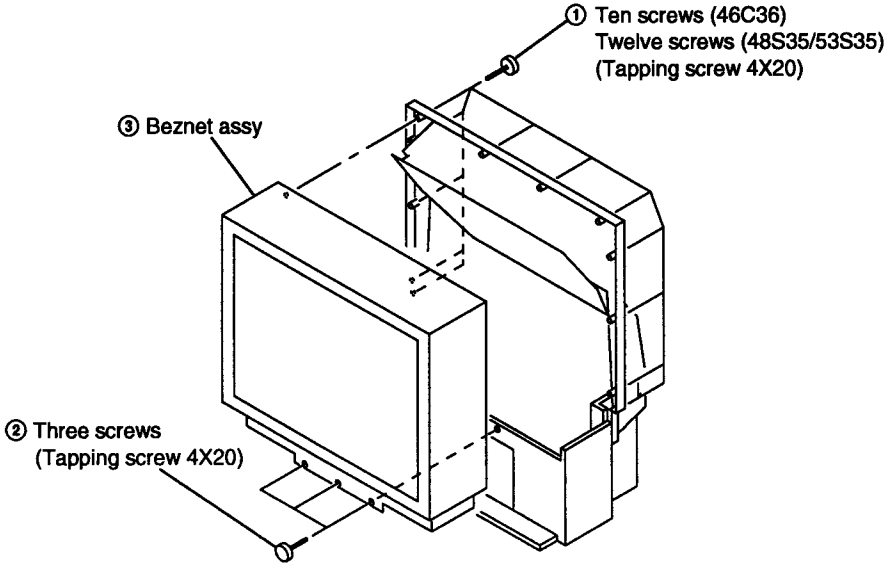
## 2-4-1. HA BOARD REMOVAL (KP-46C36)



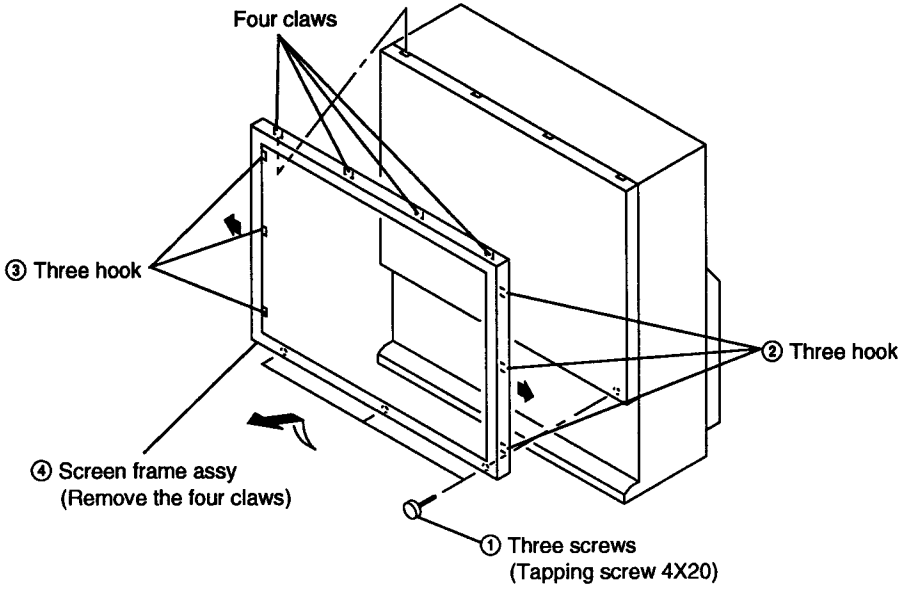

## 2-4-2. HA BOARD REMOVAL (KP-48S35/53S35/61S35)



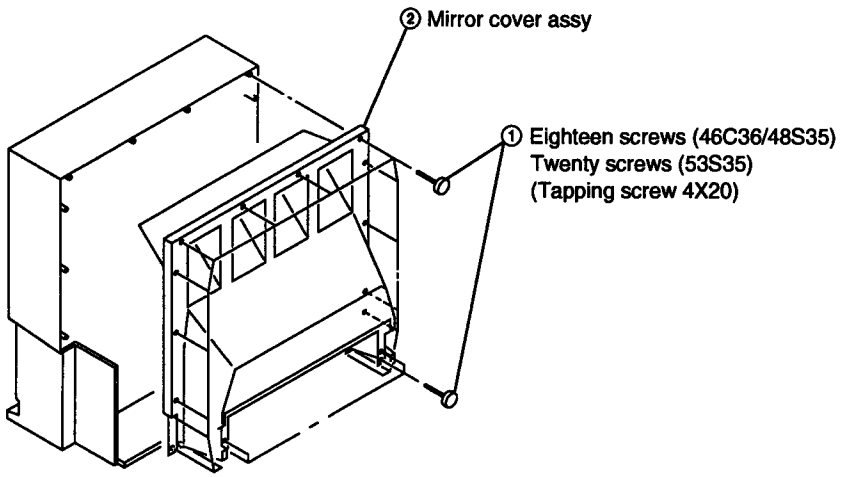

## 2-5-1. BEZNET ASSY REMOVAL (KP-46C36/48S35/53S35)



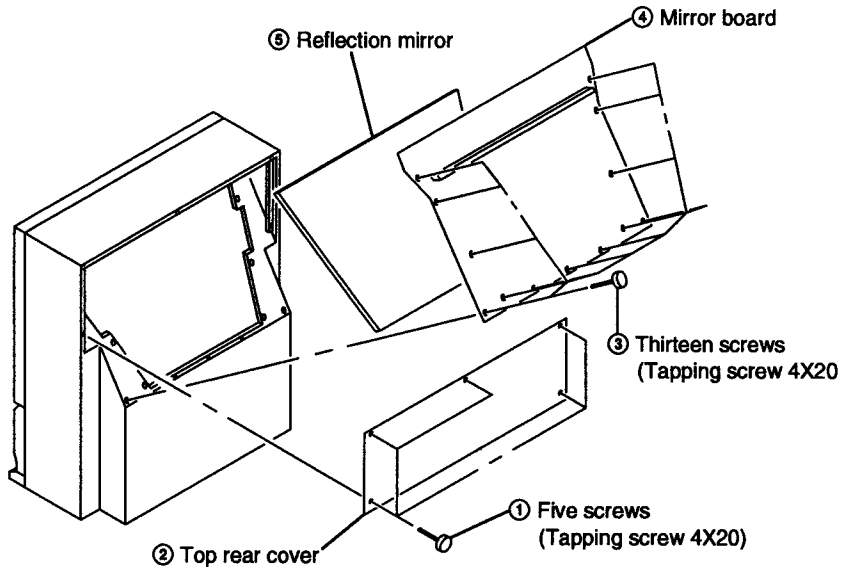

## 2-5-2. SCREEN FRAME ASSY REMOVAL (KP-61S35)



## 2-6-1. MIRROR COVER ASSY REMOVAL (KP-46C36/48S35/53S35)

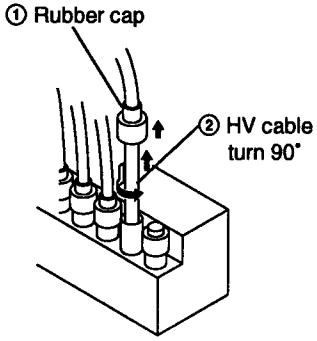



## 2-6-2. REFLECTION MIRROR REMOVAL (KP-61S35)

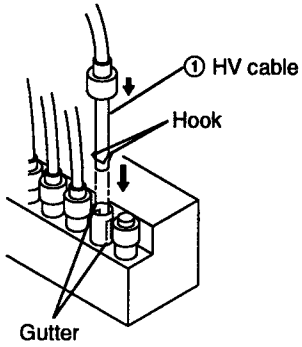



## 2-7. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

(1) Remover

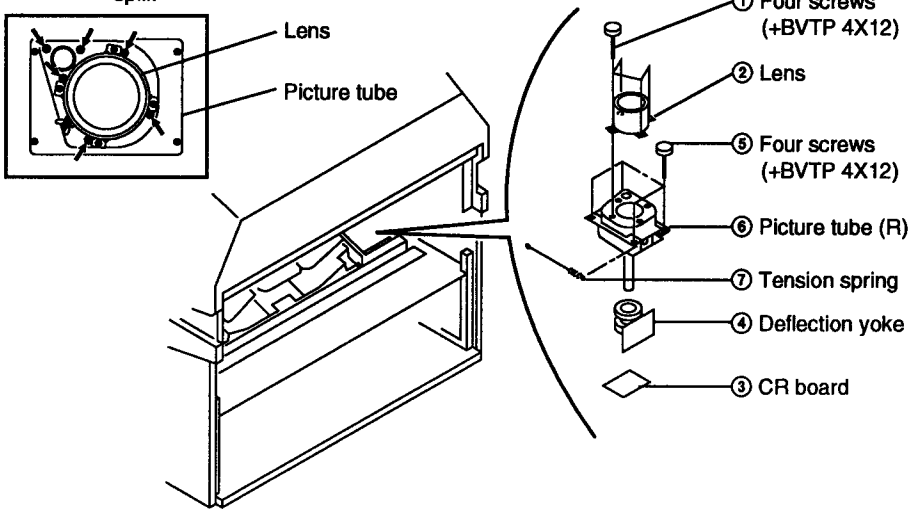



(2) Installation



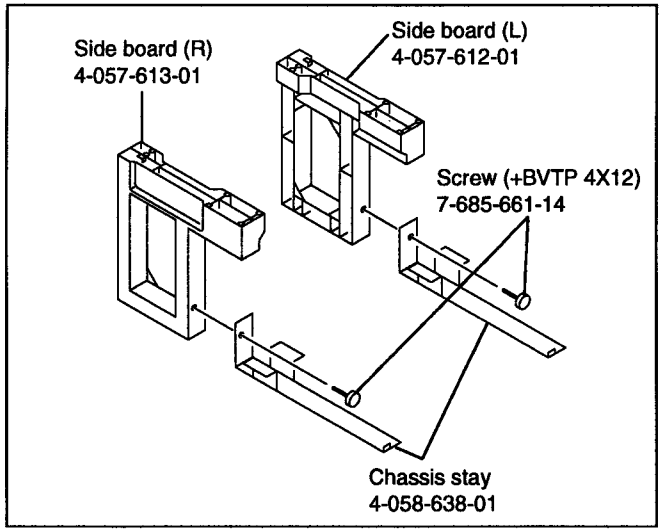

## 2-8. PICTURE TUBE REMOVAL

**CAUTION:** Removing the arrow-marked screws is strictly inhibited.
If removed, it may cause liquid spill.



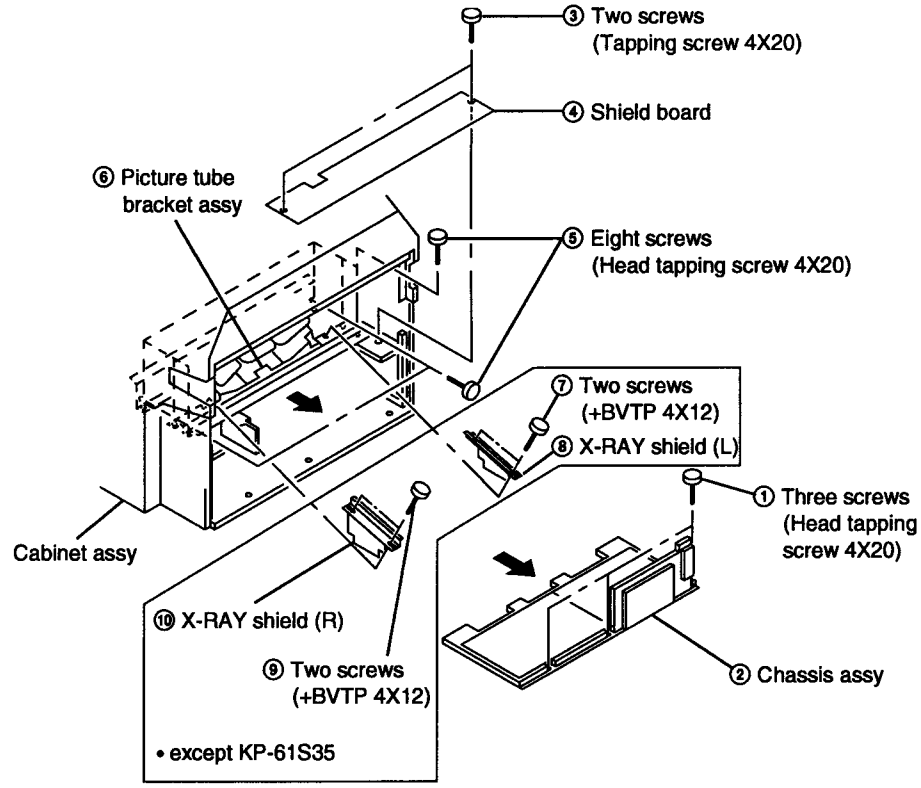
## 2-9-1. SERVICE STAY ASSY HOW TO USE AND CARRY BACK SERVICE STAY ASSY.

**SERVICE STAY ASSY**




## 2-9-2. PICTURE TUBE BRACKET ASSY REMOVAL

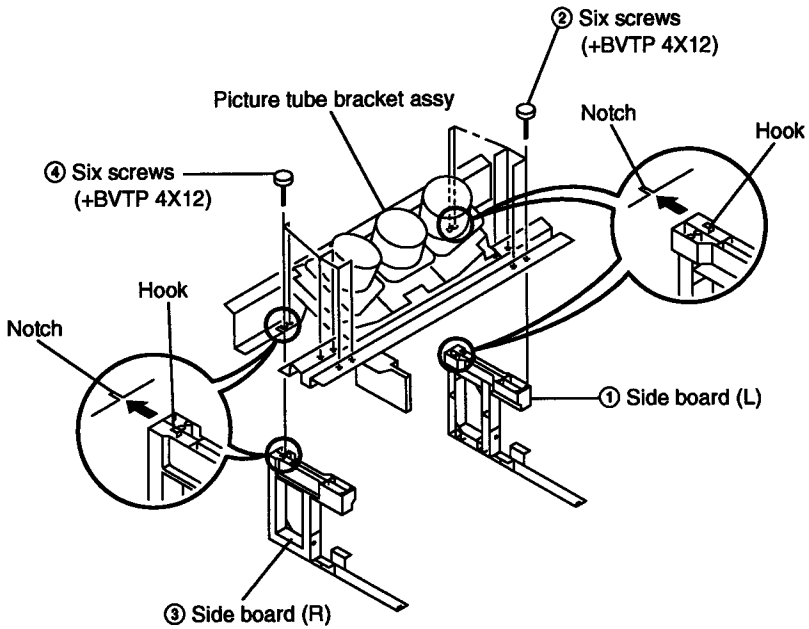
- **Disassemble HA board and speaker cord.**
- **Disassemble all the harness from purse lock.**




1) Remove ① three screws (head tapping screw 4X20) and pull out ② chassis assy from cabinet assy.
2) Remove ③ two screws (tapping screw 4X20) and remove ④ shield board.
3) Remove ⑤ eight screws (head tapping screw 4X20) and release ⑥ picture tube bracket assy from cabinet assy.

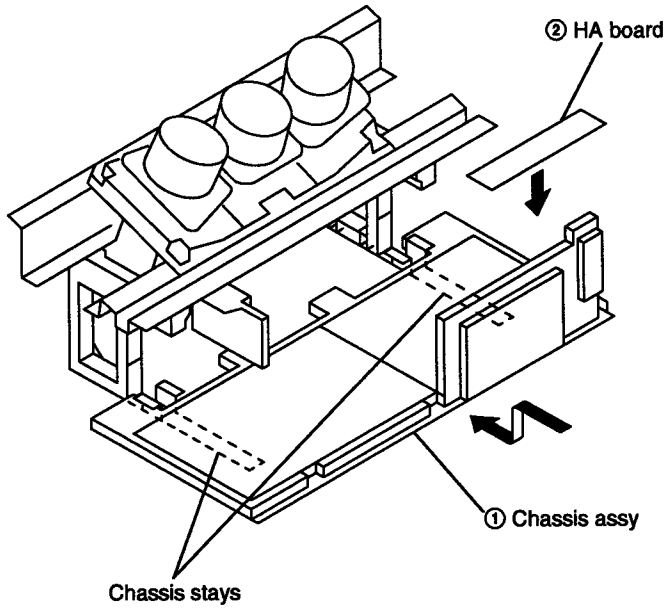
4) Remove ⑦ two screws (+BVTP 4X12) and remove ⑧ X-RAY shield (L).
5) Remove ⑨ two screws (+BVTP 4X12) and remove ⑩ X-RAY shield (R).
• except KP-61S35

## 2-9-3. SETTING OF SERVICE STAY ASSY. (KP-46C36/48S35/53S35)




1) Lift up picture tube bracket assy and fit the hook of ① side board (L) to the notch on the assy. Then fix then with ② six screws (+BVTP 4X12).
2) Lift up picture tube bracket assy and fit the hook of ③ side board (R) to the notch on the assy. Then fix then with ④ six screws (+BVTP 4X12).

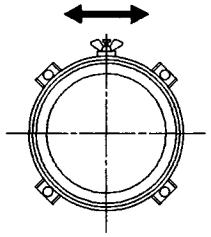
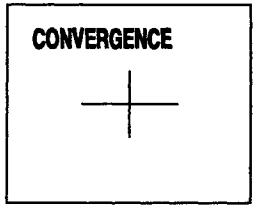
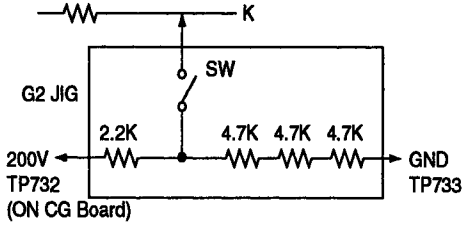
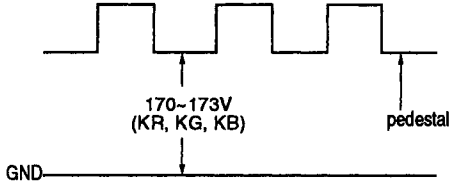
## 2-9-4. INSTALL A CHASSIS ASSY

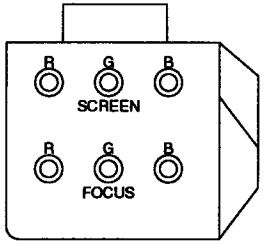
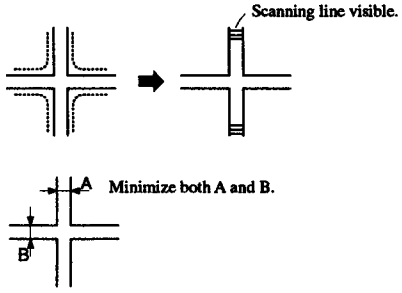
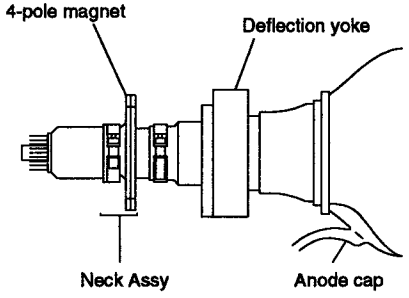


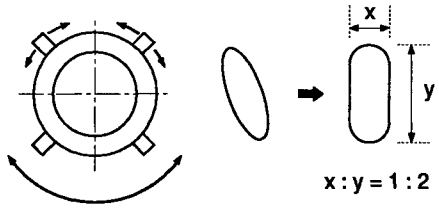
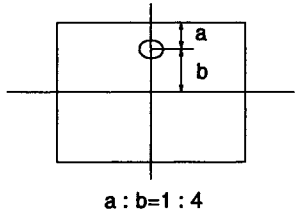

1) Put ① chassis assy on chassis stays.
2) Put ② HA board on ① chassis assy.
3) You can carry the chassis assy in this condition.

MEMO

# SECTION 3
# SET-UP ADJUSTMENTS

| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **SCREEN VOLTAGE ADJUSTMENT (ROUGH ALIGNMENT)**<br>1. Turn the red VR on the FOCUS block all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.<br>2. Next gradually turn it to the left to the position where the retrace line disappears. | Monoscope Pattern | | PICTURE .....minimum<br>BRIGHTNESS .....50%<br>SCREEN (G2) |  |
| **FOCUS LENS ADJUSTMENT**<br>1. Loosen the lens screw.<br>2. Set in service mode.<br>3. Use VP on the service mode menu to show only the green colour.<br>4. Press the Commander Menu button and select FEATURES and CONVERGENCE to display the test signal on the screen.<br>5. Rotate the green lens and align with the optimal focus point from the test signal.<br>6. Use RG-RH from the service mode menu to set to green and red.<br>7. Disply the test signal and rotate the red lens to obtain the optimum focus at the point where the red and green spots overlap.<br>8. Use RG-BH from the service mode menu to set to red and blue.<br>9. Disply the test signal and rotate the blue lens to obtain the optimum focus at the point where the blue and red spots overlap.<br>10. Tighten the lens screw. | | | |  |
| **SCREEN (G2) ADJUSTMENT**<br>1. Select VIDEO mode without signals.<br>2. Connect the G2 JIG between TP732 (200V) and TP733 (GND) on the CG Board.<br>3. Connect an oscilloscope to the TP701 (KR), TP702 (KG) and TP703 (KB) of CR board, CG board and CB board.<br>4. Adjust 170~173V (KR, KG, KB) by rotating screen VR on the focus block. | | | |  <br>  |

| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **FOCUS VR ADJUSTMENT**<br>1. Set in service mode.<br>2. Use VP on the service mode menu to show only the green colour.<br>3. Press the Commander Menu button (convergence) and output the test signal.<br>4. Rotate the green VR on the FOCUS block and align to obtain the optimal focus point.<br>5. Use RG-RH from the service mode menu to set to green and red.<br>6. Disply the test signal and rotate the red VR to obtain the optimum focus at the point where the red and green spots overlap.<br>7. Use RG-BH from the service mode menu to set to red and blue.<br>8. Disply the test signal and rotate the blue VR aligning to obtain the optimum focus at the point where the blue and green spots overlap. | | | |  <br>FOCUS block<br>  |
| **DEFLECTION YOKE TILT ADJUSTMENT**<br>1. Set in service mode.<br>2. Set to receive the monoscope signal.<br>3. Use VP on the service mode menu to show only the green colour.<br>4. Loosen the deflection yoke set screw and align the tilt of the deflection yoke so that the bars at the centre of the monoscope pattern are horizontal.<br>5. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.<br>6. The tilt of the deflection yoke for red is aligned with RG-RH on the service mode menu, and the tilt on the deflection yoke for blue is aligned with RG-BH on the service menu, is aligned the same as was done for green. | Monoscope pattern | | |  |

| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **4-POLE MAGNET ADJUSTMENT**<br>1. Set in service mode.<br>2. Set to receive the dot pattern signal.<br>3. Place the caps on the red and blue lens so that only the green colour is showing.<br>4. Turn the green VR on the focus block to the left and set to underfocus to enlarge the spot.<br>5. Now align the 4-Pole Magnet so that the enlarged spot becomes a perfect circle. | Dot pattern | | 4-pole magnet | Use the center dot<br>  <br> |
| **DEFOCUS ADJUSTMENT**<br>1. Receive the crosshatch signal.<br>2. Adjust the Blue FOCUS knob so that the crosshatch pattern vertical line width is as in the figure on the right.<br>3. Blue only defocus Adjustment. | Crosshatch pattern | | FOCUS VR<br>• BLUE | • Focus adjustment point<br>  <br> |

# ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

By using Remote Commander (RM-Y136A),all circuit adjustments can be made.

**NOTE : Test Equipment Required.**

1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio oscillator

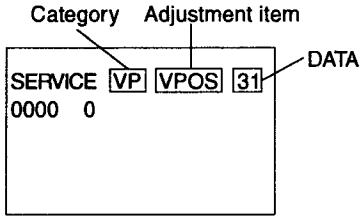
## 1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

### SERVICE MODE PROCEDURE

1. Standby mode. (Power off)
2. [DISPLAY] → [5] → [VOL (+)] → [TV POWER] on the Remote Commander.

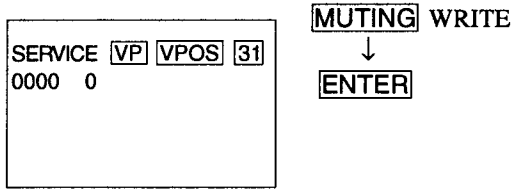
   ( [+] → [5] → ◿ → [ ] ) (Press each button within a second.)

### SERVICE MODE ADJUSTMENT




3. The CRT displays the item being adjusted.
4. Press [1] or [4] on the Remote Commander to select the adjustment item.
5. Press [3] or [6] on the Remote Commander to change the data.
6. Press [2] or [5] on the Remote Commander to select the category.
7. If you want to recover the latest values press [7] then [ENTER] to read the memory.
8. Press [MUTING] then [ENTER] to write into memory.

### SERVICE ADJUSTMENT MODE MEMORY

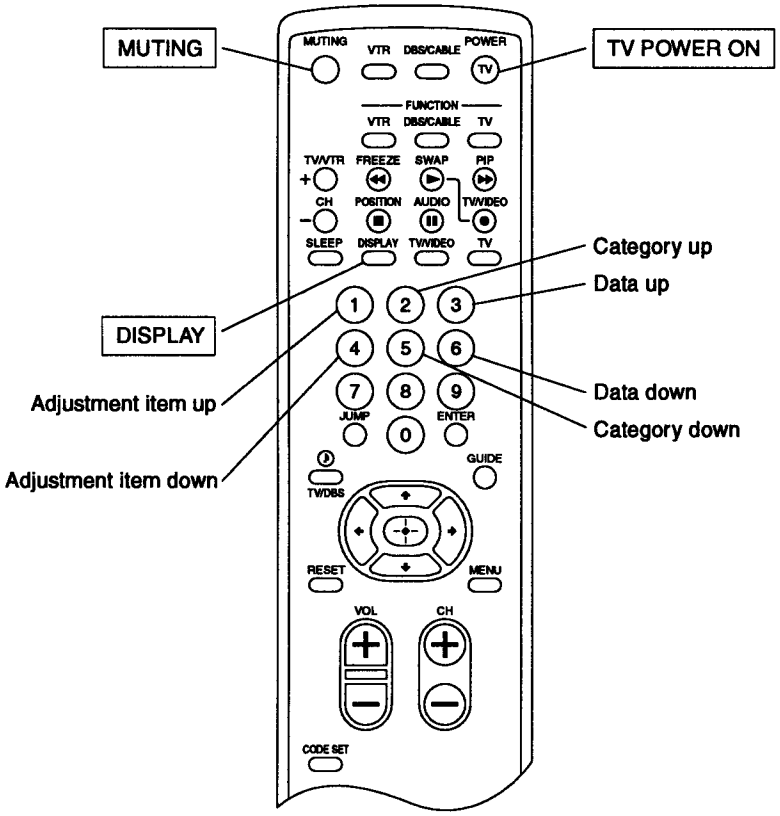



8. Press [8] then [ENTER] on the Remote Commander to initialize.
9. Turn set off and on to exit.

## 2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, remove the plug from AC outlet, and then replace the plug in AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again and confirm they were adjusted.

## 3. ADJUST BUTTONS AND INDICATOR




## 4. SERVICE MODE LIST

### VP

| Category | Adjustment item | Standard data | Note | Device |
|---|---|---|---|---|
| VP | VPOS | | V SHIFT | |
| | VSIZ | | V SIZE | |
| | VCOM | 0 | HV-COMP-V | |
| | VLIN | 7 | V LIN | |
| | VSCO | 7 | S CORRECTION | |
| | HPOS | 7 | H SHIFT | |
| | HSIZ | | H SIZE | |
| | PAMP | | PIN AMP | |
| | UPIN | 7 | UPPER CORNER PIN | |
| | LPIN | 7 | LOWER CORNER PIN | |
| | PPHA | 7 | H TRAPEZOID | |
| | AFC | 2 | AFC LOOP GAIN | |
| | VBOW | 7 | V BOW | |
| | VANG | 7 | V ANGLE | |
| | REF | 3 | AKB REFERENCE | |
| | GDRV | | GREEN DRIVE | |
| | BDRV | | BLUE DRIVE | |
| | GCUT | | GREEN CUT OFF | |
| | BCUT | | BLUE CUT OFF | |
| | SCON | | SUB CONTRAST | |
| | SHUE | | SUB HUE | |
| | SCOL | | SUB COLOR | |
| | SBRT | | SUB BRIGHTNESS | |
| | SSHP | 7 | SUB SHARPNESS | |
| | GMMA | 1 | GAMMA LEVEL | |
| | CDM2 | 0 | COUNT DOWN MODE 2 | |
| | DPIX | 1 | DYNAMIC PICTURE | |
| | Y-DC | 1 | DC TRANSMISSION RATIO | |
| | ABLM | 1 | ABL MODE | |
| | AXIS | 0 | R-Y, G-Y AXIS | |
| | NOTC | 0 | C TRAP | |
| | CROM | 7 | C TRAP F0 | |
| | TOT | 0 | C TOT FILTER | |
| | PREL | 3 | PRE/OVER LEVEL | |
| | SHPF | 1 | SHARPNESS F0 | |
| | RON | | RED ON/OFF | |
| | GON | | GREEN ON/OFF | |
| | BON | | BLUE ON/OFF | |
| | DCOL | | DYNAMIC COLOR | |
| | CDMD | 0 | V COUNT DOWN | |
| | LBLK | 13 | H BLK WIDTH LEFT SIDE | |
| | RBLK | 13 | H BLK WIDTH RIGHT SIDE | |

### AP

| Category | Adjustment item | Standard data | Note | Device |
|---|---|---|---|---|
| AP | SVOL | 0 | SUB VOLUME | |
| | SBAL | 0 | SUB BLANCE | |
| | SBAS | 7 | SUB BASS | |
| | STRE | 7 | SUB TREBLE | |

## RG

| Category | Adjustment item | Standard data | Note | Device |
|---|---|---|---|---|
| RG | GH CENT | | GREEN H SENT | |
| | GH SKEW | | GREEN H SKEW | |
| | GH BOW | | GREEN H BOW | |
| | GH 4BOW | | GREEN H 4TH BOW | |
| | GH SIZE | | GREEN H SIZE | |
| | GH LIN | | GREEN H LINEARITY | |
| | GH MSIZ | | GREEN H MID SIZE | |
| | GH MLIN | | GREEN H MID LINEARITY | |
| | GH KEY | | GREEN H KEY | |
| | GH SSKW | | GREEN H SUB SKEW | |
| | GH MPIN | | GREEN H MID PIN | |
| | GH PIN | | GREEN H PIN | |
| | GH SBOW | | GREEN H SUB BOW | |
| | GH MBOW | | GREEN H MID BOW | |
| | GH 4PIN | | GREEN H 4TH PIN | |
| | GH 4BOW | | GREEN H 4TH BOW | |
| | GV CENT | | GREEN V CENT | |
| | GV SKEW | | GREEN V SKEW | |
| | GV BOW | | GREEN V BOW | |
| | GV SIZE | | GREEN V SIZE | |
| | GV LIN | | GREEN V LINEARITY | |
| | GV MSIZ | | GREEN V MID SIZE | |
| | GV MKEY | | GREEN V MID KEY | |
| | GV KEY | | GREEN V KEY | |
| | GV SSKW | | GREEN V SUB SKEW | |
| | GV MPIN | | GREEN V MID PIN | |
| | GV PIN | | GREEN V PIN | |
| | GV SBOW | | GREEN V SUB BOW | |
| | GV WAVE | | GREEN V WAVE | |
| | GV 4PIN | | GREEN V 4TH PIN | |
| | RH CENT | | RED H CENT | |
| | RH SKEW | | RED H SKEW | |
| | RH BOW | | RED H BOW | |
| | RH 4BOW | | RED H 4TH BOW | |
| | RH SIZE | | RED H SIZE | |
| | RH LIN | | RED H LINEARITY | |
| | RH MSIZ | | RED H MID SIZE | |
| | RH MLIN | | RED H MID LINEARITY | |
| | RH KEY | | RED H KEY | |
| | RH SSKW | | RED H SUB SKEW | |
| | RH MPIN | | RED H MID PIN | |
| | RH PIN | | RED H PIN | |
| | RH SBOW | | RED H SUB BOW | |
| | RH MBOW | | RED H MID BOW | |

| Category | Adjustment item | Standard data | Note | Device |
|---|---|---|---|---|
| RG | RH 4PIN | | RED H 4TH PIN | |
| | RH 4BOW | | RED H 4TH BOW | |
| | RV CENT | | RED V CEVT | |
| | RV SKEW | | RED V SKEW | |
| | RV BOW | | RED V BOW | |
| | RV SIZE | | RED V SIZE | |
| | RV LIN | | RED V LINEARITY | |
| | RV MSIZ | | RED V MID SIZE | |
| | RV MKEY | | RED V MID KEY | |
| | RV KEY | | RED V KEY | |
| | RV SSKW | | RED V SUB SKEW | |
| | RV MPIN | | RED V MID PIN | |
| | RV PIN | | RED V PIN | |
| | RV SBOW | | RED V SUB BOW | |
| | RV WAVE | | RED V WAVE | |
| | RV 4PIN | | RED V 4TH PIN | |
| | RV WING | | RED V WING | |
| | BH CENT | | BLUE H CENT | |
| | BH SKEW | | BLUE H SKEW | |
| | BH BOW | | BLUE H BOW | |
| | BH 4BOW | | BLUE H 4TH BOW | |
| | BH SIZE | | BLUE H SIZE | |
| | BH LIN | | BLUE H LINEARITY | |
| | BH MSIZ | | BLUE H MID SIZE | |
| | BH MLIN | | BLUE H MID LINEARITY | |
| | BH KEY | | BLUE H KEY | |
| | BH SSKW | | BLUE H SUB SKEW | |
| | BH MPIN | | BLUE H MID PIN | |
| | BH PIN | | BLUE H PIN | |
| | BH SBOW | | BLUE H SUB BOW | |
| | BH MBOW | | BLUE H MID BOW | |
| | BH 4PIN | | BLUE H 4TH PIN | |
| | BH 4BOW | | BLUE H 4TH BOW | |
| | BV CENT | | BLUE V CENT | |
| | BV SKEW | | BLUE V SKEW | |
| | BV BOW | | BLUE V BOW | |
| | BV SIZE | | BLUE V SIZE | |
| | BV LIN | | BLUE V LINEARITY | |
| | BV MSIZ | | BLUE V MID SIZE | |
| | BV MKEY | | BLUE V MID KEY | |
| | BV KEY | | BLUE V KEY | |
| | BV SSKW | | BLUE V SUB SKEW | |
| | BV MPIN | | BLUE V MID PIN | |
| | BV PIN | | BLUE V PIN | |

| Category | Adjustment item | Standard data | Note | Device |
|---|---|---|---|---|
| RG | BV SBOW | | BLUE V SUB BOW | |
| | BV WAVE | | BLUE V WAVE | |
| | BV 4PIN | | BLUE V 4TH PIN | |
| | BV WING | | BLUE V WING | |

## CC

| Category | Adjustment item | Standard data | Note | Device |
|---|---|---|---|---|
| CC | CRIH | 9 | CRI COUNT HIGH | |
| | CRIL | 2 | CRI COUNT LOW | |
| | CR2L | 2 | CRI COUNT LOW(F2) | |
| | CCDI | 3 | NO CCD INT COMPARE | |
| | CRIP | 7 | CRI & PARITY ERROR | |
| | CRIT | 0 | CRI TIME CONSTANT | |
| | CSB1 | 2 | SYNC SLICE BIAS 1 | |
| | CSB2 | 5 | SYNC SLICE BIAS 2 | |
| | CCBD | 4 | C SYNC BACKPORCH DET | |
| | CCFD | 7 | C SYNC FRONTPORCH DET | |
| | CREP | 136 | CRI SIGNAL END POSITION | |
| | CSEP | 176 | START BIT END POSITION | |
| | CRBD | 8 | CRI BACKPORCH DET | |
| | CRFD | 9 | CRI FRONTPORCH DET | |
| | CSSD | 3 | STROBE WINDOW ST DLY | |
| | CSED | 9 | STROBE WINDOW ED DLY | |
| | CSBS | 12 | START BIT THRESHOLD | |
| | CDSD | 8 | DATA START DELAY | |
| | CCDS | 9 | CAPTION DT THRESHOLD | |
| | CHMK | 38 | H SYNC MASK WIDTH | |
| | CHSY | 144 | H SYNC VCO COUNT | |

## OP

| Category | Adjustment item | Standard data | Note | Device |
|---|---|---|---|---|
| OP | DISP | | OSD POSITION | |

## ID

| Category | Adjustment item | Standard data | | Note | Device |
|---|---|---|---|---|---|
| | | S | 46C | | |
| ID | ID0 | 25 | 25 | MODEL ID#0 | |
| | ID1 | 21 | 55 | MODEL ID#1 | |
| | ID2 | 31 | 31 | MODEL ID#2 | |
| | ID3 | 00 | 00 | MODEL ID#3 | |
| | ID4 | 155 | 155 | MODEL ID#4 | |
| | ID5 | 177 | 177 | MODEL ID#5 | |
| | ID6 | 198 | 198 | MODEL ID#6 | |
| | ID7 | 66 | 66 | MODEL ID#7 | |

## PP

| Category | Adjustment item | Standard data | Note | Device |
|---|---|---|---|---|
| PP | BGHP | - | PIP H POSITION | |
| | BGVP | - | PIP V POSITION | |
| | MAHP | - | P&P MAIN H AQUISITION | |
| | MAVP | - | P&P MAIN V AQUISITION | |
| | SAHP | - | P&P SUB H AQUISITION | |
| | SAVP | - | P&P SUB V AQUISITION | |
| | DECS | - | S DECODER REGISTERS | |
| | DECM | - | M DECODER REGISTERS | |
| | DIS | - | DISPLAY SETTING | |
| | BHSZ | - | BORDER H SIZE | |
| | BVSZ | - | BORDER V SIZE | |
| | VPED | - | V OFFSET | |
| | UPED | - | U OFFSET | |

## PS

| Category | Adjustment item | Standard data | Note | Device |
|---|---|---|---|---|
| PS | PIPH | | PIP H POSITION | |
| | PIPV | | PIP V POSITION | |
| | PMVD | 16 | PIP V PULSE DELAY(M) | |
| | PIVD | 22 | PIP V PULSE DELAY(I) | |
| | PCON | | PIP CONTRAST(I) | |
| | FRMY | 7 | PIP FRAME Y LEVEL | |
| | IPER | 0 | PIP PEDESTAL R-Y(I) | |
| | IPEB | 0 | PIP PEDESTAL B-Y(I) | |
| | IHUE | | PIP SUB HUE | |
| | ICOL | | PIP SUB COLOR | |
| | PHDL | 3 | PIP H PULSE DELAY | |
| | PYSD | 0 | PIP SELECT DELAY | |
| | PYDL | 0 | PIP Y DELAY | |
| | PCPS | 0 | PIP CLP | |
| | PCPF | 0 | PIP CLP CYCLES | |
| | PSEL | 0 | PIP SELDOWN | |

| Category | Adjustment item | Standard data | Note | Device |
|---|---|---|---|---|
| PS | PPLL | 0 | PIP PLL | |
| | CHRI | 1 | PIP INPUT POLARITY | |
| | CHRO | 0 | PIP OUTPUT POLARITY | |

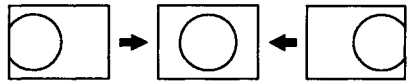
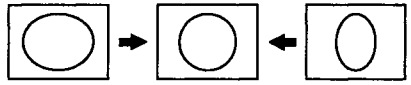
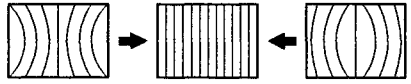
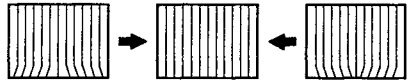
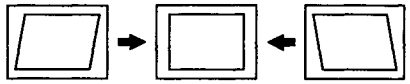
## MC

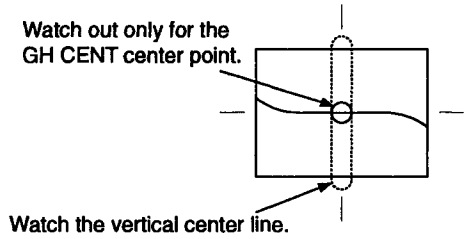
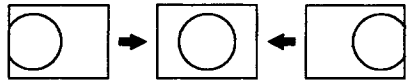
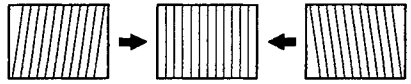
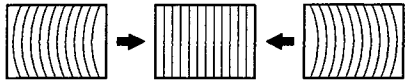
| Category | Adjustment item | Standard data | Note | Device |
|---|---|---|---|---|
| MC | MSCN | - | P&P MAIN SUB CONTRAST | |
| | MSHU | - | P&P MAIN SUB HUE | |
| | MSCL | - | P&P MAIN SUB COLOR | |
| | MUPD | - | P&P MAIN U OFFSET | |
| | MVPD | - | P&P MAIN V OFFSET | |
| | MDLY | - | P&P MAIN Y DELAY | |
| | MBGR | - | P&P MAIN SCP CONTROL(1) | |
| | MBGF | - | P&P MAIN SCP CONTROL(2) | |

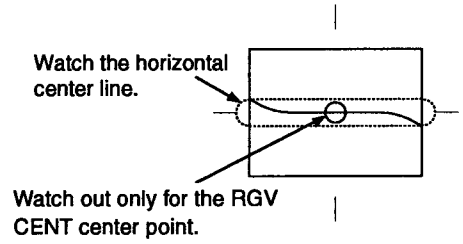
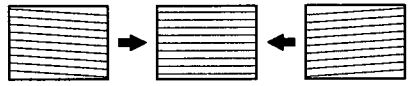
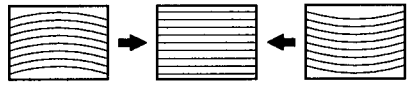
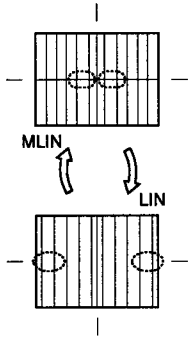
## IC

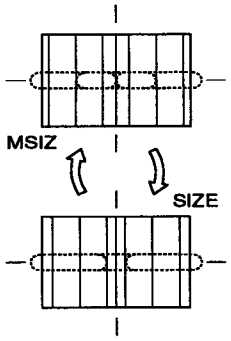
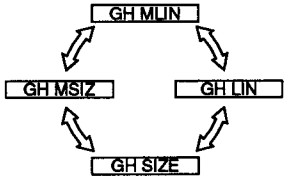
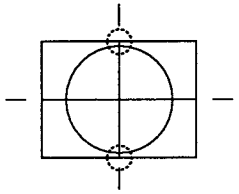
| Category | Adjustment item | Standard data | Note | Device |
|---|---|---|---|---|
| IC | SSCN | - | P&P SUB SUB CONTRAST | |
| | SSHU | - | P&P SUB SUB HUE | |
| | SSCL | - | P&P SUB SUB COLOR | |
| | SUPD | - | P&P SUB U OFFSET | |
| | SVPD | - | P&P SUB V OFFSET | |
| | SDLY | - | P&P SUB Y DELAY | |
| | SBGR | - | P&P SUB SCP CONTROL(1) | |
| | SBGF | - | P&P SUB SCP CONTROL(2) | |
| | PAFC | - | PIP AFC LOOP GAIN | |
| | PTOT | - | PIP CHROMA TOT FILTER | |
| | PYDR | - | PIP Y DRIVE | |
| | PYDC | - | PIP DC TRAN | |
| | PSHP | - | PIP SHARPNESS F0 | |
| | PDPI | - | PIP DYNAMIC PICTURE | |
| | PSYS | - | PIP COLOR SYSTEM | |
| | PXTL | - | PIP X' TAL | |
| | PLOP | - | PIP COLOR LOOP | |

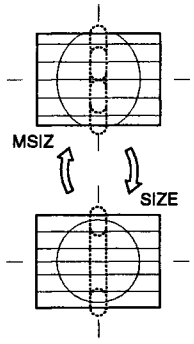
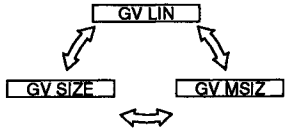
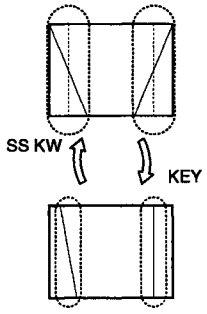
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **CONVERGENCE ADJUSTMENT**<br>●When replacing the deflection yoke, always perform "DEFLECTION YOKE TILT ADJUSTMENT" before adjusting the convergence.<br><br>Adjustment procedure<br>VP MAIN → RG GH (SUB), RG GV (SUB) → RG RH(SUB), RG RV (SUB) → RG BH (SUB), RG BV (SUB) | | | | |
| **• GREEN REGISTRATION ADJUSTMENT** | | | <VP MENU> | |
| • V-SHIFT adjustment | Monoscope pattern or Crosshatch pattern | | VP VPOS | VPOS |
| • V-LINEARITY adjustment | | | VP VSIZ | VSIZ |
| • V-SIZE, V-CORRECTION adjustment<br>While tracking, adjust so that the lattice intervals for VSIZ and VSCO are equal. | | | VP VLIN<br>VP VSCO | VLIN<br>VSCO |

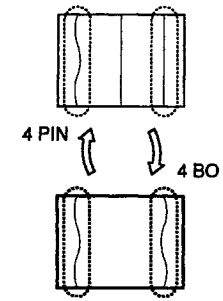
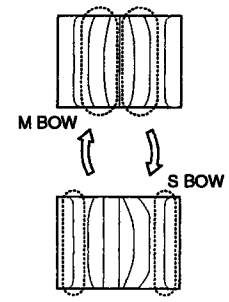
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| • H-SHIFT adjustment | | | VP HPOS | HPOS  |
| • H-SIZE adjustment<br>Finely adjust with SUB MSIZ. | | | VP HSIZ | HSIZ  |
| • PIN-AMP adjustment<br>Finely adjust with SUB MPIN. | | | VP PAMP | PAMP  |
| • UPPER/LOWER-CORNER PIN adjustment<br>Correct the screens top and bottom bow line.<br>However, if this adjustment is overdone, distortion may occur with the PIN-AMP adjustment that can not be re-adjusted.<br><br>Note : The PIN-AMP adjusts the overall screen from top to bottom, but the UPPER/LOWER-CORNER PIN adjustments have large movement in the top and bottom sections, so be careful. | | | VP UPIN<br><br>VP LPIN | UPIN <br>LPIN  |
| • V-BOW, V-ANGLE adjustment<br>Correct the tilt and bow of the vertical line at the center of the screen. | | | VP VBOW<br><br>VP VANG | VBOW <br>VANG  |

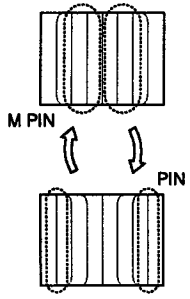
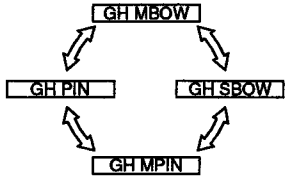
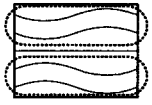
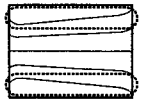
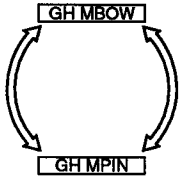
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **• GREEN SUB ADJUSTMENT**<br>**SCREEN CENTER SECTION GREEN VERTICAL LINE ADJUSTMENT**<br>1. Finely adjust with GH CENT, GH BOW, GH SKEW. Adjust by watching out for the RGH CENT screen center section. | | | <RG-GH MENU><br>GH CENT<br>GH SKEW<br>GH BOW |  <br>GH CENT<br>  <br>GH SKEW<br>  <br>GH BOW<br>  |
| 2. GH 4TH BOW adjustment<br>Correct the corner distortion that could not be adjusted away with the GH BOW adjustment. | | | GH 4BOW | GH 4BOW<br> |

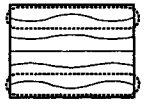
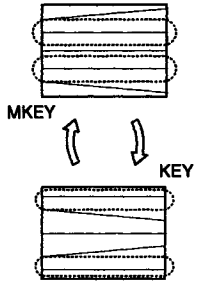
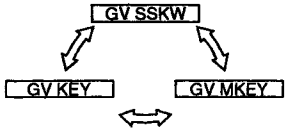
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **SCREEN CENTER SECTION GREEN HORIZONTAL LINE ADJUSTMENT** | | | <RG-GV MENU> | |
| 1. Finely adjust the center position of the vertical line at the center of the screen with GV CENT. | | | GV CENT |   <br> GV CENT |
| 2. Correct the tilt and bow of the horizontal line at the center of the screen with GV SKEW and GV BOW. | | | GV SKEW<br>GV BOW | GV SKEW  <br> GV BOW  |
| **GREEN SIZE AND LINEARITY ADJUSTMENT**<br>1. Balance the sizes at both sides of the center section of the screen with GH MLIN.<br>2. Balance the sizes on both end sections of the screen with GH LIN.<br>3. While tracking, adjust with GH MLIN and GH LIN so that the sizes of the horizontal line at the center of the screen are symmetrical left and right. | | | <RG-RH MENU><br>GH MLIN<br>GH LIN |   |

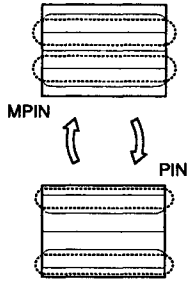
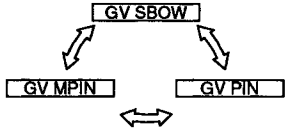
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **GREEN HORIZONTAL SIZE ADJUSTMENT**<br>1. Adjust with GH MSIZE so that the sizes of both ends and of both sides of the center section of the screen are equal.<br>2. Adjust with GH SIZE so that the horizontal sizes of both ends and of both sides of the center section of the screen are equal.<br>3. While tracking, adjust with GH MSIZ and GH SIZE so that the lattice intervals for the horizontal line section of the center section of the screen are equal and so that the horizontal size is the prescribed value.<br>4. If M LIN is changed when the GH MSIZ and GH SIZE adjustment is complete, adjust again while tracking.<br><br>●With just the H SIZE adjustment in MAIN, if there is no need to adjust GH SIZE in SUB this can save power. | | | <RG-GH MENU><br>GH MSIZ<br><br>GH SIZE |  <br>  |
| **GREEN VERTICAL LINEARITY ADJUSTMENT**<br>1. Adjust GV LIN so that the vertical lines at the top and bottom of the screen are symmetrical. | | | <RG-GV MENU><br>GV LIN |  |

| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **GREEN VERTICAL SIZE ADJUSTMENT**<br>1. Adjust with GV MSIZE so that the sizes for the top and bottom sections of the screen and for both sides of the center section of the screen are equal.<br>2. Set the vertical size to the prescribed value with GV SIZE.<br>3. Adjust GV MSIZ and GV SIZE watching the vertical line at the center section of the screen.<br>4. While tracking, adjust with GV MSIZ and GV SIZE so that the lattice intervals for the vertical line section of the center section of the screen are equal and so that the vertical size is the regulation value.<br>5. If GV LIN is out of place when the GV MSIZ and GV SIZE adjustment is complete, adjust again while tracking.<br>●If there is no need to adjust GV SIZE in SUB with just the V SIZE adjustment in MAIN, this can save power. | | | <RG-GV MENU><br>GV MSIZ<br><br>GV SIZE |  <br>  |
| **GREEN HORIZONTAL TRAPEZOIDAL DISTORTION ADJUSTMENT**<br>1. Adjust with GH SSKW so that the tilt of the vertical lines at both ends of the screen is symmetrical left and right.<br>2. Adjust with GH KEY so that there is no tilt in the vertical lines at both ends of the screen.<br>3. If there is a tilt on either the left or right after the GH KEY adjustment, adjust while tracking. | | | <RG-GH MENU><br>GH SSKW<br>GH KEY |  |

| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **GREEN HORIZONTAL QUATERNARY ADJUSTMENT**<br>1. Correct the quaternary distortion with GH 4PIN.<br>2. While balancing, correct the quaternary distortion of both end sections of the screen with GH 4SBO.<br>3. While tracking, adjust with GH 4PIN and GH 4SBO. | | | <RG-GH MENU><br>GH 4PIN<br>GH 4BOW |  |
| **GREEN HORIZONTAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT**<br>1. Adjust with GH MBOW so that the pin asymmetry at both sides of the center section of screen is symmetrical.<br>2. Adjust with GH SBOW so that the bow at both end sections of the screen is symmetrical left and right.<br>3. While tracking, adjust with GH MBOW and GH SBOW so that the bow of vertical lines on the entire screen is symmetrical left and right. | | | <RG-GH MENU><br>GH MBOW<br>GH SBOW |  |

| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **GREEN HORIZONTAL SYMMETRICAL PIN DISTORTION ADJUSTMENT** | | | <RG-GH MENU> | |
| 1. Adjust the pin distortion at both sides of the center section of the screen with GH MPIN. | | | GH MPIN |   |
| 2. Adjust the pin distortion at both end sections of the screen with GH PIN. | | | GH PIN | |
| 3. While tracking, adjust with GH MPIN and GH PIN so that the PIN of vertical lines on the entire screen have no bowing. | | | | |
| 4. If there is asymmetrical pin distortion after the GH MPIN and GH PIN adjustments, adjust with GH MBOW and GH SBOW while tracking. | | | GH MBOW<br>GH SBOW |   |
| ●With just the PIN AMP adjustment in MAIN, if there is no need to adjust GV PIN in SUB, this can save power. | | | | |
| **GREEN VERTICAL WAVE (TERTIARY DISTORTION) ADJUSTMENT** | | | <RG-GV MENU> | |
| 1. Take the screen top and bottom horizontal lines with GV WAVW and find the secondary and quaternary waveform. | | | GV WAVE | GV WAVE  |
| 2. There is KEY distortion after the GV WAVW adjustment, so adjust with GV WAVW and GV KEY while tracking. | | | GV KEY | GV KEY    |

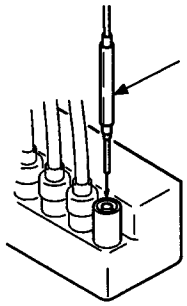
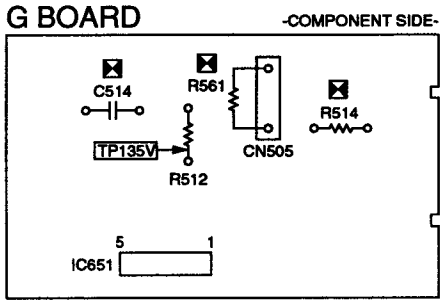
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **GREEN VERTICAL QUATERNARY DISTORTION ADJUSTMENT**<br>1. Correct the quaternary distortion of the horizontal lines at the top and bottom sections of the screen with RGV 4PIN.<br>1) Since there is no 4SBOW for vertical correction, there will be a slight imbalance, but adjust to eliminate the distortion from the horizontal line at either the top or the bottom of the screen.<br>2) In many cases, the horizontal lines at the top and bottom sections of the screen are not straight lines after the adjustment. As long as the secondary distortion is mild enough that it can be corrected with the PIN adjustment, this is OK. | | | <RG-GV MENU><br>GV 4PIN | GV 4PIN<br>  |
| **GREEN VERTICAL TRAPEZOIDAL DISTORTION ADJUSTMENT**<br>1. Adjust with GV SSKW so that the tilt of the horizontal lines at the top and bottom sections of the screen is symmetrical about the center position horizontal line.<br>2. Adjust with GV MKEY so that there is no tilt for the line sections at both sides of the horizontal lines at the center section of the stream.<br>3. Adjust with GV KEY so that there is no tilt for the horizontal lines at the top and bottom sections of the screen.<br>4. While tracking, adjust with GV MKEY and GV KEY so that there is no tilt for the horizontal lines on the entire screen. | | | <RG-GV MENU><br>GV SSKW<br>GV MKEY<br>GV KEY | GV SSKW<br> <br>  |
| 5. If the tilt is unbalanced after the GV MKEY and GV KEY adjustment, adjust again with GV SSKW. | | | GV SSKW |  |

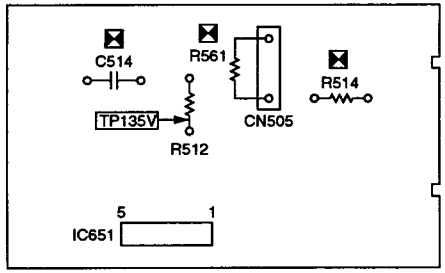
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **GREEN VERTICAL ASYMMETRICAL PIN DISTORTION (SECONDARY DISTORTION) ADJUSTMENT**<br>1. Correct the asymmetrical pin distortion at the top and bottom sections of the screen with GV SBOW. | | | <RG-GV MENU><br>GV SBOW | RGV SBOW<br> |
| **GREEN VERTICAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT**<br>1. Adjust the pin distortion for both side sections and the center of the screen with GV MPIN.<br>2. Adjust with GV PIN so that the horizontal lines at the top and bottom sections of the screen are straight lines.<br>3. Adjust with GV MPIN and GV PIN so that there is no curve in the horizontal lines on the entire screen. | | | <RG-GV MENU><br>GV MPIN<br>GV PIN |  <br> |
| 4. After the adjustments in Items 1-3, adjust the tracking with GV SBOW, GV MPIN, and GV PIN. | | | GV SBOW |  <br> |

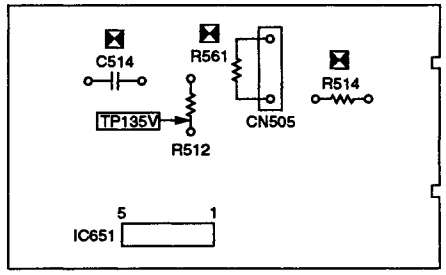
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **GREEN AND RED REGISTRATION ADJUSTMENT (RRH, RRV)**<br>1. Receive a cross-hatch signal.<br>2. Adjust so that the red lines lay on the green lines.<br>Adjust with the same procedure as the GREEN SUBadjustment.<br><br>Notes : 1. The main correction is not carried out during red registration adjustment.<br>2. Beware. The green adjustment items can be changed by mistake.<br>3. Unlike for green, adjust within the range -127 ~ +128. | Cross-hatch pattern | | | |
| **GREEN AND BLUE REGISTRATION ADJUSTMENT (RBH, RBV)**<br>1. Receive a cross-hatch signal.<br>2. Adjust so that the blue and green lines are on top of each other.<br><br>Notes : 1. The main correction is not carried out during RED registration adjustment.<br>2. Beware. The GREEN and RED adjustment items can be changed by mistake. | Cross-hatch pattern | | | |

| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **AGC ADJUSTMENT** | | | | |
| 1. Receive an off-air signal.<br>2. Adjust the AGC VR ( TU 1001 ) so that there is no snow noise and cross-modulation. | | | | |
| **WHITE BALANCE ADJUSTMENT** | | | | |
| 1. Receive the monoscope pattern signal and adjust the picture quality with the menu.<br>2. Adjust service mode SBRT so that the signal 10 IRE section barely glows. | Monoscope pattern | | PICTURE<br>.....minimun<br><RGB MENU><br>RGB SBRT | |
| 3. Receive the all-white pattern signal.<br>4. Adjust the white balance with service mode GCUT and BCUT.<br>5. Adjust service mode SBRT so that the signal 100 IRE section barely glows.<br>6. Adjust the white balance with service mode GDRV and BDRV.<br>7. Repeatedly adjust the white balance for the minimum and maximum picture settings. | All White pattern | | RGB GCUT<br>RGB BCUT<br><br>PICTURE<br>.....minimun<br>RGB GDRV<br>RGB BDRV<br>PICTURE<br>.....maximum | |

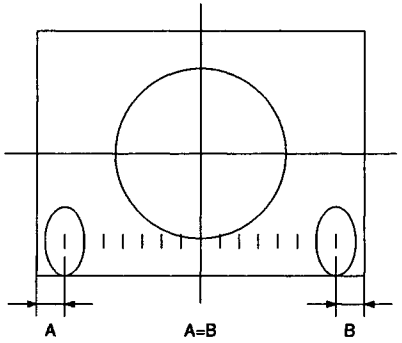
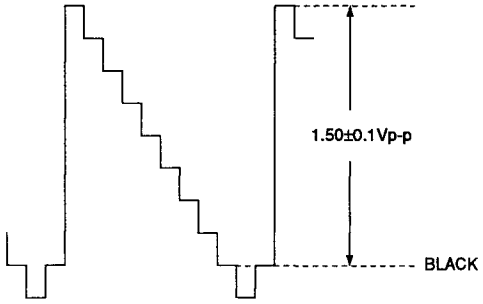
# SECTION 4
# SAFETY RELATED ADJUSTMENTS

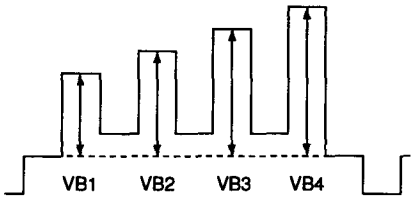
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **[ G BOARD ]**<br><br>**HV REGULATION CIRCUIT CHECK AND ADJUSTMENT**<br><br>When replacing the following components marked with ◪ on the schematic diagram always check HV regulation, and if necessary re-adjust.<br><br>**OPERATION CHECK**<br>1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.<br>2. Power on the set.<br>3. Receive dot signal pattern. (PICTURE and BRIGHT to minimum)<br>4. Check that the HV static voltmeter is reading 31.00±1.0kVdc.<br><br>**HV Regulation adjustment**<br>1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.<br>2. Power on the set.<br>3. Receive dot signal pattern. (PICTURE and BRIGHT to minimum)<br>4. If anode voltage is 32kV or higher, replace C514 of 390PF/2kV with that of 680PF/2kV, and check if the voltage is within the standard range.<br>5. If anode voltage is 30kV or lower, replace C514 of 390PF/2kV with that of 100PF/2kV, and check if the voltage is within the standard range. | | ◪ marked parts<br>C514, C516,<br>C515,<br>T502 (PMT),<br>T503 (HLT),<br>T504 (FBT),<br>DEFLECTION YOKE,<br>IC651 | ⊠ C514 |  <br>  |

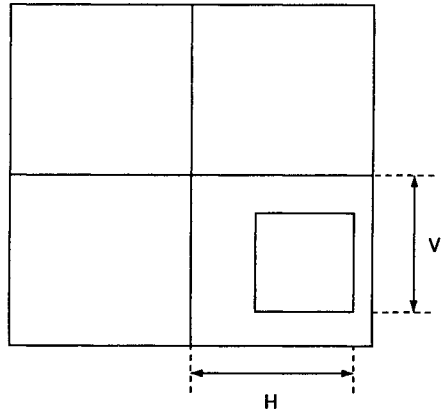
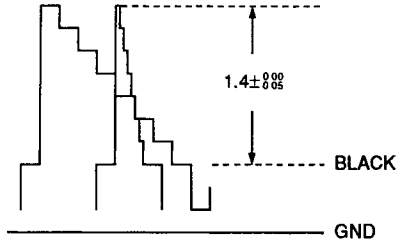
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **[ G BOARD ]**<br><br>**HV HOLD DOWN CIRCUIT OPERATION CHECK AND ADJUSTMENT (⊠ R514, R561)**<br><br>When replacing the following components marked with ◪ on the schematic diagram, always check hold-down voltage and if necessary re-adjust.<br><br>**OPERATION CHECK**<br>1. Remove CN651 connecter.<br>2. Short-circuit across TP-PROT (R692) and ground.<br>3. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.<br>4. Connect a 220k variable resistor, across pin ③ and pin ⑤ of IC651 set to maximum value.<br>5. Power on the set.<br>6. Receive dot signal pattern. (PICTURE and BRIGHT to minimum)<br>7. Gradually lower the value of the variable resistor and check that the hold-down circuit operates at a static voltmeter reading of 33.5±1.0kVdc when the raster disappears.<br><br>**HV HOLD-DOWN ADJUSTMENT**<br>1. Repeat steps ① ~ ⑦ as above.<br>2. If hold down voltage is 34.5kV or higher, remove R514, mount a resistor (390kΩ, 1/4W : RN) onto R561 instead, and check again if the hold-down voltage is within the standard range.<br>3. If hold-down voltage is 32.5kV or lower, mount a resistor (220kΩ, 1/4W : RN) onto R561, and check again if the hold-down voltage is within the standard range.<br><br>**NOTE :** Please finish the adjustment as soon as possible. | | ◪ marked parts<br>R502, R514,<br>R516, R517,<br>R539, R560,<br>R561, C507,<br>C513, D501,<br>D504, D507,<br>IC301, IC501,<br>IC651, T502 (PMT),<br>T503 (HLT), T504(FBT)<br>DEFLECTION YOKE | ⊠ R514, 561 | G BOARD -COMPONENT SIDE-<br>  <br> |

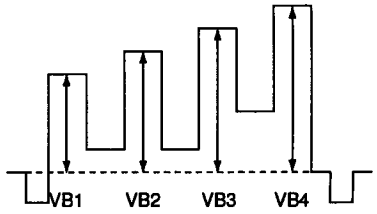
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **[ G BOARD ]**<br><br>**+B MAX VOLTAGE CONFIRMATION**<br><br>The following adjustments should always be performed when replacing IC651.<br>1. Supply 130VAC to variable autotransformer.<br>2. Input dot signal.<br>3. Set the PICTURE control and the BRIGHTNESS controls to minimum.<br>4. Confirm if the voltage of G BOARD TP135V is less than 137.0 Vdc.<br>5. If step 4 is not satisfied, replace IC651 and repeat above steps.<br><br>**+B OVP CONFIRMATION**<br><br>1. Remove CN651 connector.<br>2. Connect a voltmeter to TP135V, and TP (PROT) and ground.<br>3. Connect a 220kΩ variable resistor, across pin ③ and pin ⑤ of IC651, and set to maximum value.<br>4. Supply 120VAC to variable autotransformer.<br>5. Set PICTURE and the BRIGHTNESS controls to minimum.<br>6. Gradually turn the 220kΩ variable register, and check if OVP works properly when the voltage of TP135V is between 139.0~151.5V. | | | | G BOARD -COMPONENT SIDE-<br>  <br> |

# SECTION 5
# CIRCUIT ADJUSTMENT

| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **RF AGC**<br>1. Input a color-bar signal.<br>2. Adjust AGC VR of TU1101 so that snow, noise, and cross-modulation disapper from the picture.<br>3. Verify picture quality on each channel. | | | | |
| **BER DISPLAY ADJUSTMENT (DISP)**<br>1. Receive cross-hatch signal.<br>2. Set to Service mode.<br>3. Select "DISP", and adjust so that the blank spaces on the both sides of picture bar become equal.<br>4. Write the data into memory.<br>MUTING→ENTER | | | |  |
| **SUB-CONTRAST ADJUSTMENT (SCON)**<br>1. Receive the color-bar signal.<br>2. PICTURE : maximum<br>COLOR : minimum<br>BRIGHTNESS : minimum<br>RON---1 GON---0 BON---0<br>3. Set to service mode.<br>4. Connect an oscilloscope between ⑥ pin of CN004 (A Board) and ground.<br>5. Select "SCON" and adjust so that the wave from level is 1.50±0.1Vp-p.<br>6. Write the data into memory<br>MUTING→ENTER | | | |  |

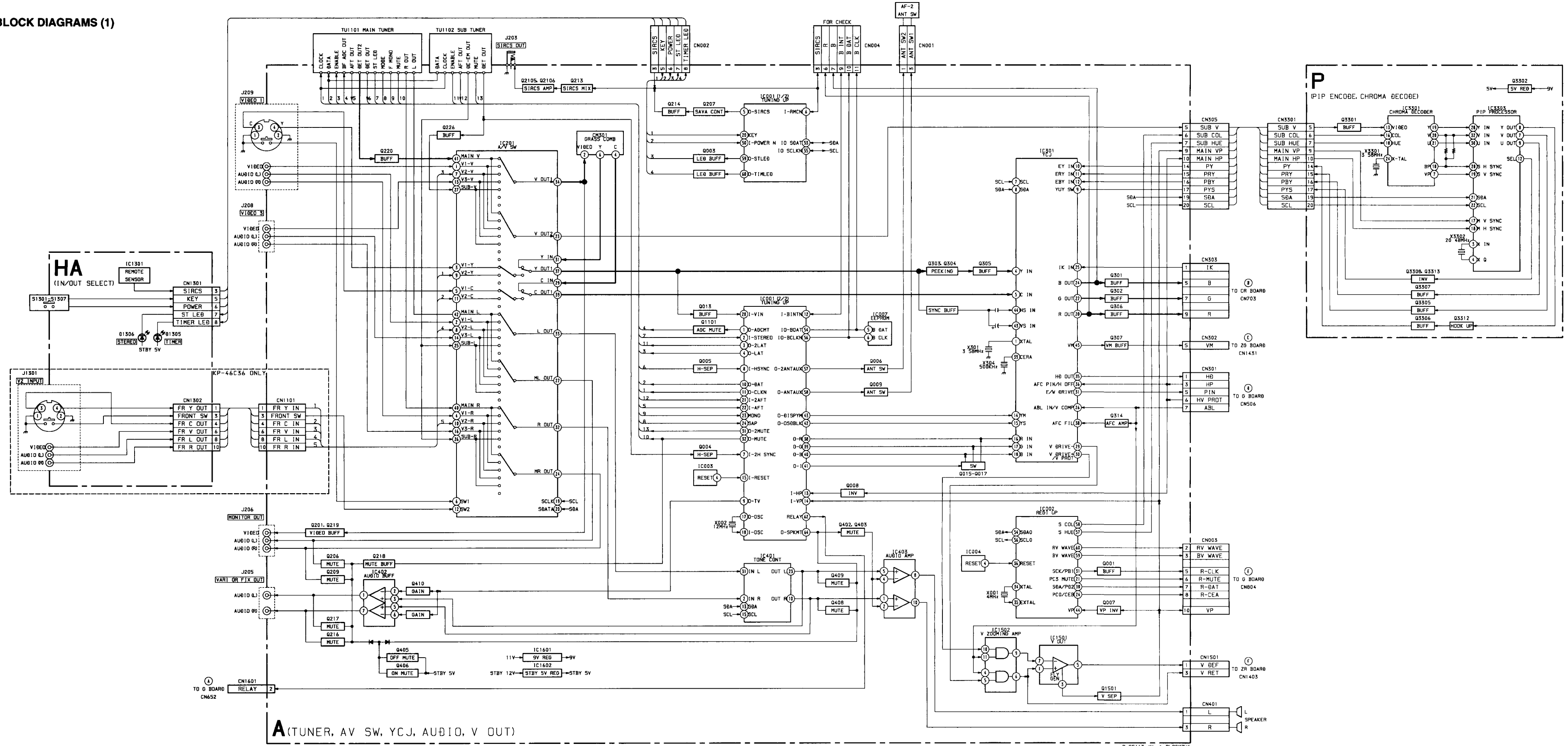
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **SUB-HUE AND SUB-COLOR ADJUSTMENT (SHUE, SCOL)**<br>1. Receive color-ber signal.<br>2. PICTURE : maximum<br>COLOR : minimum<br>BRIGHTNESS : minimum<br>3. Set to Service mode.<br>4. Connect an oscilloscope between ⑦ pin of CN004 (A Board) connecter and ground.<br>5. Select "SHUE" and "SCOL", and adjust them to have VB1=VB4 and VB2=VB3 in the waveform levels.<br>6. Raise SCOL data 1 steps higher.<br>7. Write the data into memory.<br>MUTING → ENTER | | | |  |

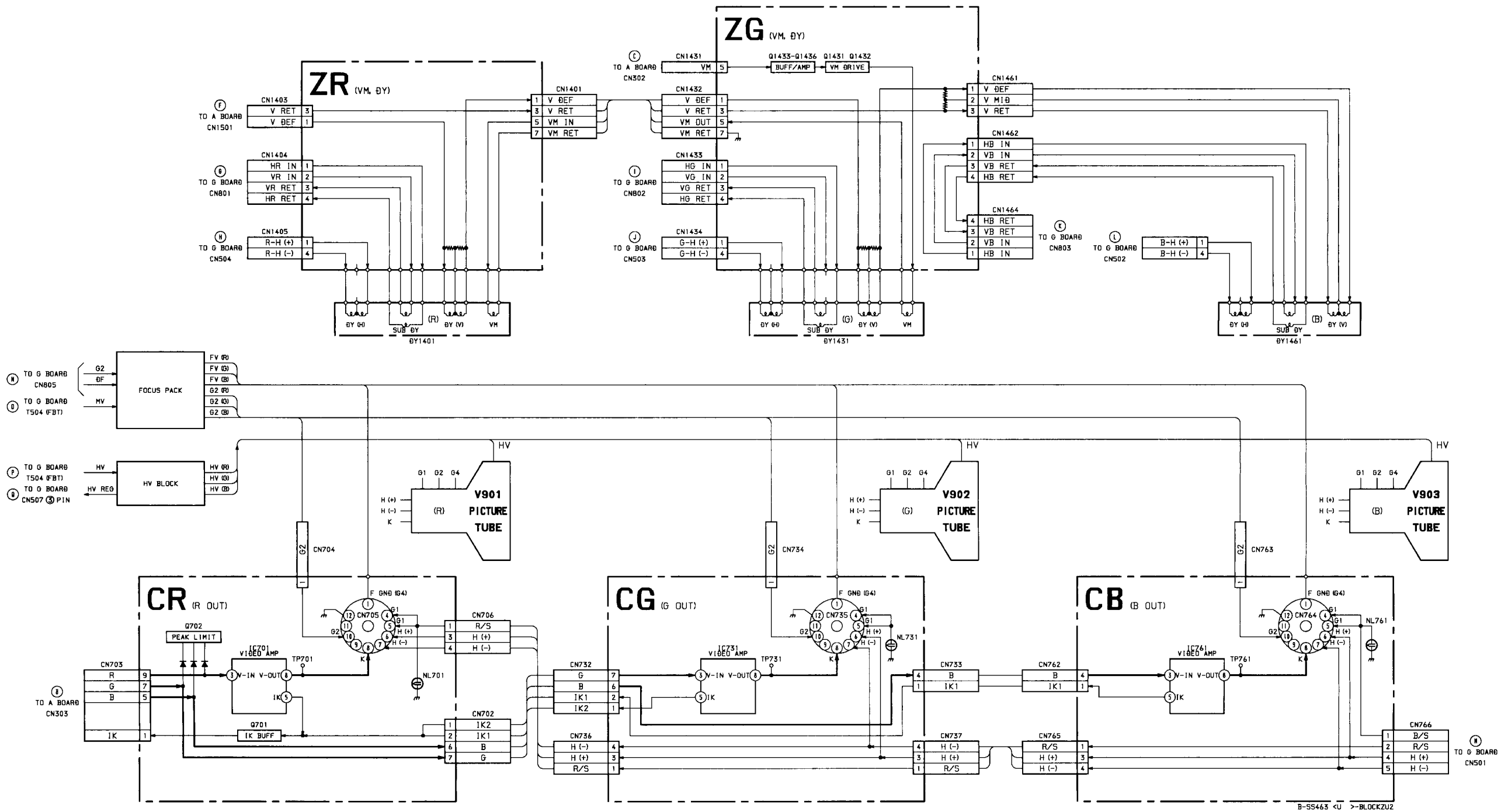
| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **P IN P POSITION ADJUSTMENT (PIPH, PIPV)**<br>1. Receive monoscope pattern signal.<br>2. Set to P IN P mode, and to Service mode.<br>3. Check the SUB PICTURE position.<br>4. Select "PIPH" and "PIPV" and adjust H/V position to the specified level.<br>5. Write the data into memory<br>MUTING→ENTER | | | |  <br>H : 7.00 ± 0.25sq<br>V : 5.25 ± 0.25sq |
| **P IN P SUB CONTRAST ADJUSTMENT (PCON)**<br>1. Receive color-bar signal.<br>2. PICTURE : maximum<br>COLOR : minimum<br>BRIGHTNESS : minimum<br>3. Set to Service mode.<br>4. Connect an oscilloscope between ⑨ pin CN303 (A Board) and ground.<br>5. Select "P CON" and adjust so that waveform level is $1.4^{+0.05}_{-0.00}$ Vp-p.<br>6. Write the data into memory.<br>MUTING→ENTER | | | |  |

| ADJUSTMENT ITEM AND PROCEDURE | EQUIPMENT AND SIGNAL | MEASUREMENT POSITION | ADJUSTMENT LOCATION | ILLUSTRATION AND SHAPE AND NUMBER |
|---|---|---|---|---|
| **P IN P SUB HUE, SUB COLOR ADJUSTMENT (IHUE, ICOL)**<br>1. Receive the color-bar signal.<br>2. PICTURE : maximum<br>COLOR : center<br>BRIGHTNESS : center<br>3. Set to Service mode.<br>4. Connect an oscilloscope between ⑤ pin of CN303 (A Board) and ground.<br>5. Select "IHUE" and ICOL, adjust them to have VB1=VB4 and VB2=VB3 in the waveform levels.<br>6. Raise "ICOL" data 1 steps higher.<br>7. Write the data into memory.<br>MUTING→ENTER | | | |  |

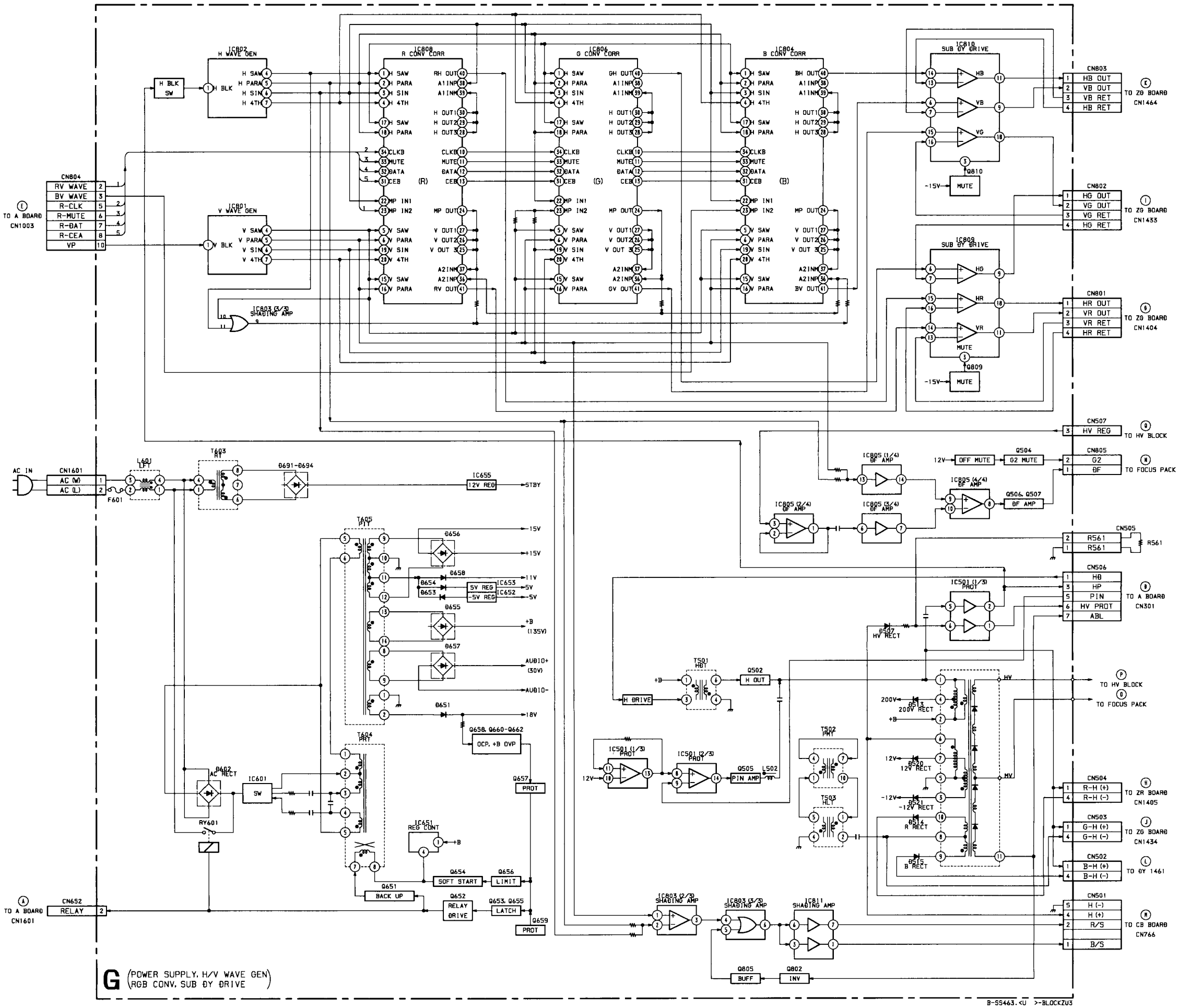
# SECTION 6
# DIAGRAMS

## 6-1. BLOCK DIAGRAMS (1)

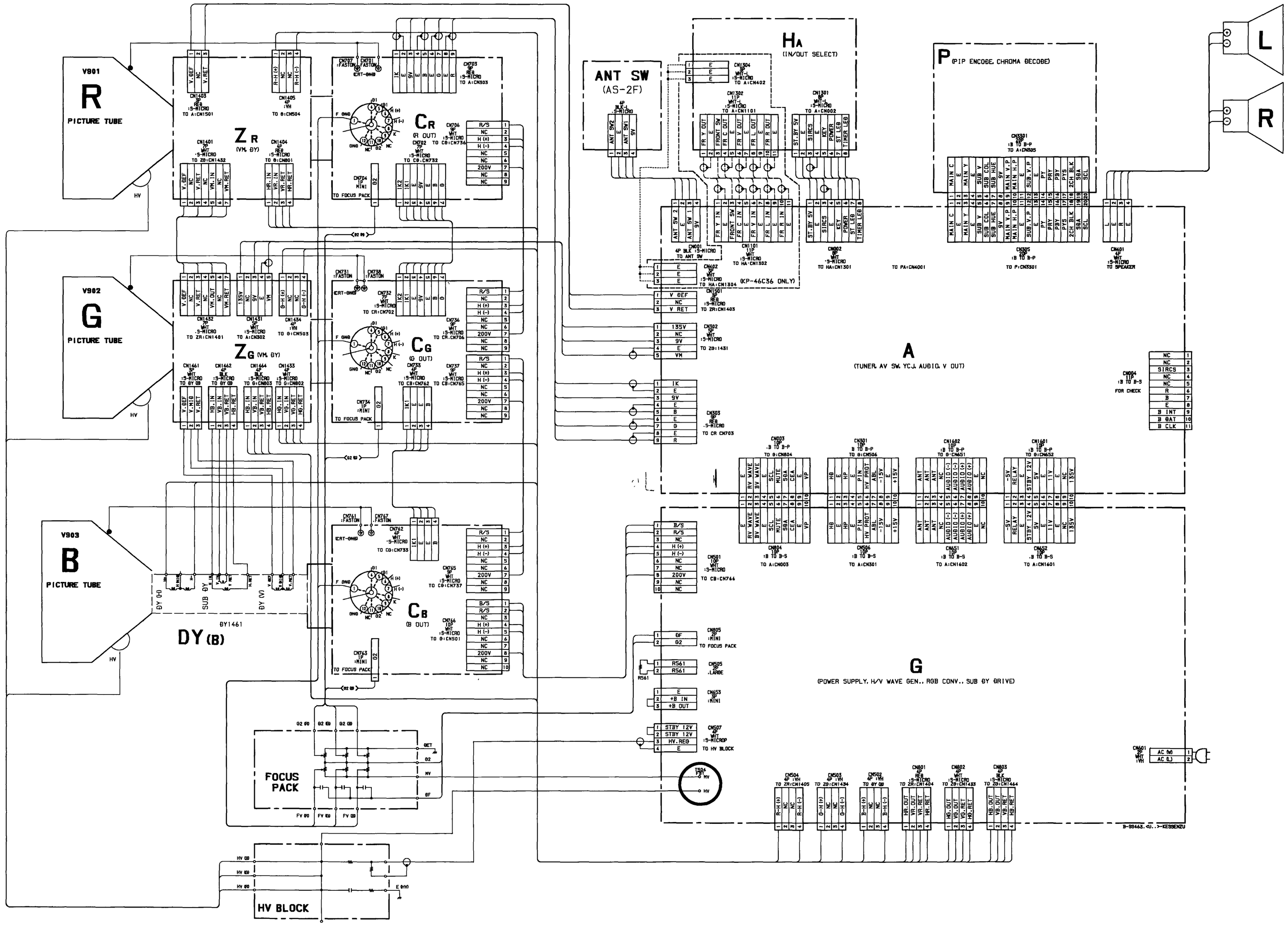



ZR (VM, DY)
ZG (VM, DY)
CR (R OUT)
CG (G OUT)
CB (B OUT)
FOCUS PACK
HV BLOCK
V901 PICTURE TUBE
V902 PICTURE TUBE
V903 PICTURE TUBE
TO A BOARD CN1501
TO G BOARD CN801
TO G BOARD CN504
TO A BOARD CN302
TO G BOARD CN802
TO G BOARD CN503
TO G BOARD CN803
TO G BOARD CN502
TO G BOARD CN805
TO G BOARD T504 (FBT)
TO G BOARD CN507 ③ PIN
TO A BOARD CN303
TO G BOARD CN501
PEAK LIMIT
IK BUFF
VIDEO AMP
B-SS463 <U >-BLOCKZU2

## BLOCK DIAGRAMS (3)



## 6-2. FRAME SCHEMATIC DIAGRAM

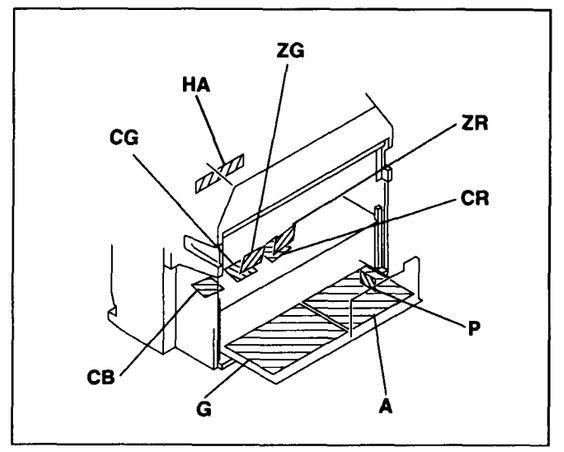









## 6-3. CIRCUIT BOARDS LOCATION




## 6-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms.
  kΩ = 1000Ω, MΩ = 1000kΩ
- Indication of resistance, which does not have one for rating electrical power, is as follows

| |
|---|
| Pitch: 5 mm |
| Rating electrical power: 1/4W |

- : nonflammable resistor
- : fusible resistor.
- △ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-chassis.
- The components identified by ⊠ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
  Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⊠ and repeat the adjustment until the specified value is achieved.
  (Refer to R514, R561 and C514 adjustment on Page 49 to 51 )
- When replacing the part in below table, be sure to perform the related adjustment.

| Part replaced (◪) | Adjustment (⊠) |
|---|---|
| C514, C515, C516, IC651, T502, T503, T504, DY | HV Regulator (C514) |
| C507, C513, D501, D504, D507, IC301, IC501, IC651, R502, R514, R516, R517, R539, R560, R561, T502, T503, T504, DY | HV HOLD-DOWN (R514, R561) |

- As to the voltage value shown by the semiconductors on the Schematic Diagram, see the another list.
- Readings are taken with a color-bar signal input.
- Readings are taken with a 10MΩ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V
- ＊ : Measurement impossibility.
- Circled numbers are waveform reference
- B + line
- B − line
- signal path (RF)

**Note: The symbol display is on the component side.**

**The components identified by shading and mark △ are critical for safety. Replace only with part number specified.**

**The symbol indicate fast operating fuse. Replace only with fuse of same rating as marked.**

**Note: Les composants identifiés par un tramé et une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.**

**Le symbole indique une fusible a action rapide. Doit etre remplacee par une fusible de meme valeur, comme maque.**

Reference information

| | | |
|---|---|---|
| RESISTOR | : RN | METAL FILM |
| | RC | SOLID |
| | · FPRD | NONFRAMMABLE CARBON |
| | . FUSE | NONFRAMMABLE FUSIBLE |
| | : RW | NONFRAMMABLE WIREWOUND |
| | : RS | NONFRAMMABLE METAL OXIDE |
| | RB | NONFRAMMABLE CEMENT |
| | · ※ | ADJUSTMENT RESISTOR |
| COIL | LF-8L | MICRO INDUCTOR |
| CAPACITOR | . TA | TANTALUM |
| | . PS | STYROL |
| | : PP | POLYPROPYLENE |
| | · PT | MYLAR |
| | MPS | METALIZED POLYESTER |
| | : MPP | METALIZED POLYPROPYLENE |
| | : ALB | BIPOLAR |
| | : ALT | HIGH TEMPERATURE |
| | : ALR | HIGH RIPPLE |

### Terminal name of semiconductors in silk screen printed circuit ( ＊ )

| | Device | Printed symbol | Terminal name | Circuit |
|---|---|---|---|---|
| ① | Transistor | T | Collector Base Emitter | |
| ② | Transistor | — | Collector Base Emitter | |
| ③ | Diode | | Cathode Anode | |
| ④ | Diode | T | Cathode Anode (NC) | |
| ⑤ | Diode | — | Cathode Anode (NC) | |
| ⑥ | Diode | T | Common Anode Cathode | |
| ⑦ | Diode | — | Common Anode Cathode | |
| ⑧ | Diode | T | Common Anode Anode | |
| ⑨ | Diode | — | Common Anode Anode | |
| ⑩ | Diode | T | Common Cathode Cathode | |
| ⑪ | Diode | — | Common Cathode Cathode | |
| ⑫ | Transistor (FET) | \| | Drain Source Gate | |
| ⑬ | Transistor (FET) | ⊢ | Drain Source Gate | |
| ⑭ | Transistor (FET) | \| | Source Drain Gate | |
| ⑮ | Transistor | — | C2/B1/E1 B1/E2/C1 | |
| ⑯ | Transistor | — | C1/B2/E2 B2/E1/C2 | |
| ⑰ | Transistor | — | C1 B2 E2 B1 E1 C2 | |
| ⑱ | Transistor | — | C1 B2 E2 B1 E1 C2 | |
| ⑲ | Transistor | — | E2 B1 E1 C2 C1(NC) | |
| ⑳ | Transistor | — | B1 E1 E2 C1 C2 | |
| ㉑ | Transistor | — | B1 E1 E2 C2 C1 | |
| – | Discrete semiconductor | | | |

(Chip semiconductors that are not actually used are included )

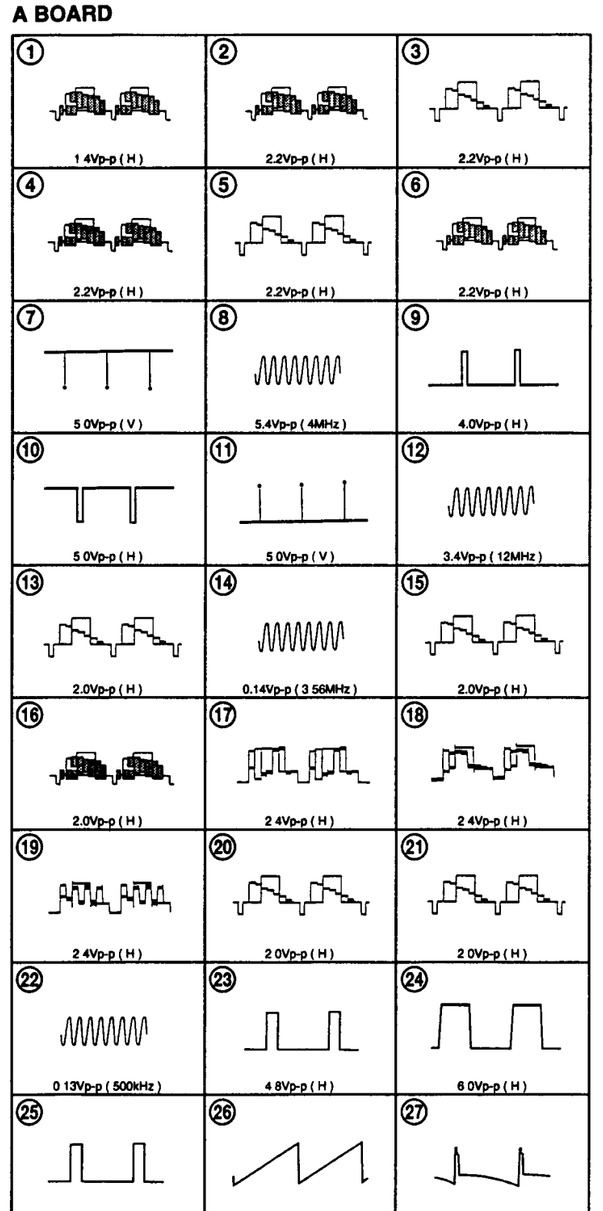
## A BOARD

| REF | Pin No. | VOLTAGE | REF. | Pin No. | VOLTAGE | REF | Pin No. | VOLTAGE | REF | Pin No. | VOLTAGE | REF. | Pin No. | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ① | 0 | | ① | 4.7 | IC027 | ① | 5.0 | | ① | 5.1 | | ① | 1.8 |
| | ② | 0 | | ② | 4.7 | | ② | 4.9 | | ② | GND | | ② | 0 |
| | ③ | 0 | | ③ | 4.7 | | ③ | 4.9 | | ③ | 0 | | ③ | 0 |
| | ④ | 0 | | ④ | 8.8 | | ④ | 4.9 | | ④ | 0 | | ④ | 4.4 |
| | ⑤ | 0 | | ⑤ | 3.7 | | ⑤ | 4.8 | | ⑤ | 5.0 | | ⑤ | 4.9 |
| | ⑥ | 4.8 | IC001 | ⑥ | 0 | | ⑥ | 4.7 | | ⑥ | 5.0 | IC401 | ⑥ | 4.4 |
| | ⑦ | 0 | | ⑦ | 0 | | ⑦ | 5.0 | | ⑦ | 5.0 | | ⑦ | 4.4 |
| | ⑧ | 0 | | ⑧ | 4.1 | | ⑧ | 4.2 | | ⑧ | 6.7 | | ⑧ | 4.4 |
| | ⑨ | 4.4 | | ⑨ | 0 | | ⑨ | 5.0 | | ⑨ | 6.5 | | ⑨ | 4.4 |
| | ⑩ | 0 | | ⑩ | 4.4 | | ⑩ | 4.2 | | ⑩ | 0.8 | | ⑩ | 4.4 |
| | ⑪ | 0 | | ⑪ | 4.9 | | ⑪ | 4.8 | | ⑪ | 6.7 | | ⑪ | 5.1 |
| | ⑫ | 4.9 | | ⑫ | 4.7 | | ⑫ | 4.7 | | ⑫ | 0.8 | | ⑫ | 4.4 |
| | ⑬ | 4.3 | | ⑬ | 0 | | ⑬ | 4.8 | | ⑬ | 1.5 | | ⑬ | 4.4 |
| | ⑭ | 0 | | ⑭ | 4.9 | | ⑭ | 4.2 | | ⑭ | 5.4 | | ⑭ | 0 |
| | ⑮ | 4.9 | | ⑮ | GND | | ⑮ | GND | | ⑮ | 0.6 | IC402 | ⑮ | 4.4 |
| | ⑯ | GND | | ⑯ | 2.4 | | ⑯ | 4.2 | | ⑯ | 2.9 | | ⑯ | 4.4 |
| | ⑰ | 2.4 | | ⑰ | 2.1 | | ⑰ | GND | IC301 | ⑰ | 3.0 | | ⑰ | 4.4 |
| | ⑱ | 2.1 | | ⑱ | 4.9 | | ⑱ | GND | | ⑱ | 3.8 | | ⑱ | 9.0 |
| | ⑲ | 0 | | ⑲ | GND | | ⑲ | 4.8 | | ⑲ | 4.2 | | ⑲ | 1.4 |
| | ⑳ | 4.9 | | ⑳ | 2.3 | IC201 | ⑳ | GND | | ⑳ | 4.6 | | ⑳ | 3.0 |
| | ㉑ | 2.3 | | ㉑ | GND | | ㉑ | 4.3 | | ㉑ | 15.3 | | ㉑ | 3.1 |
| | ㉒ | 2.4 | | ㉒ | GND | | ㉒ | 6.9 | | ㉒ | 3.4 | | ㉒ | 3.1 |
| | ㉓ | 0 | | ㉓ | GND | | ㉓ | 4.2 | | ㉓ | 3.4 | IC403 | ㉓ | 1.4 |
| | ㉔ | 0 | | ㉔ | 4.8 | | ㉔ | 4.2 | | ㉔ | 4.1 | | ㉔ | 0 |
| | ㉕ | GND | IC002 | ㉕ | GND | | ㉕ | 4.2 | | ㉕ | 4.1 | | ㉕ | 0.2 |
| | ㉖ | 1.8 | | ㉖ | 2.6 | | ㉖ | 4.2 | | ㉖ | 2.3 | | ㉖ | 28.2 |
| | ㉗ | 2.6 | | ㉗ | 2.2 | | ㉗ | 4.8 | | ㉗ | GND | | ㉗ | 0.1 |
| | ㉘ | 2.2 | | ㉘ | 5.0 | | ㉘ | 4.8 | | ㉘ | 2.8 | | ㉘ | GND |
| | ㉙ | 5.0 | | ㉙ | 1.9 | | ㉙ | 2.2 | | ㉙ | 2.7 | | ㉙ | 1.2 |
| | ㉚ | 1.9 | | ㉚ | 0 | | ㉚ | 2.8 | | ㉚ | 3.9 | | ㉚ | 14.4 |
| | ㉛ | 0 | | ㉛ | 0 | | ㉛ | 4.3 | | ㉛ | 3.9 | | ㉛ | -14.0 |
| | ㉜ | 0 | | ㉜ | 2.2 | | ㉜ | 4.2 | | ㉜ | 3.7 | IC1501 | ㉜ | -15.4 |
| | ㉝ | 0 | | ㉝ | GND | | ㉝ | 5.1 | | ㉝ | GND | | ㉝ | 0.8 |
| | ㉞ | 0 | | ㉞ | GND | | ㉞ | GND | | ㉞ | GND | | ㉞ | 14.5 |
| | ㉟ | 0 | | ㉟ | 4.9 | | ㉟ | 4.3 | | ㉟ | GND | | ㉟ | 1.2 |
| | ㊱ | 4.9 | | ㊱ | 4.9 | | ㊱ | 4.4 | | ㊱ | 4.4 | | ㊱ | -0.3 |
| | ㊲ | 0 | | ㊲ | 0 | IC003 | ㊲ | 3.5 | | ㊲ | 4.4 | | ㊲ | 0 |
| | ㊳ | 0 | IC003 | ㊳ | GND | | ㊳ | 4.4 | | ㊳ | 4.4 | | ㊳ | 0 |
| | ㊴ | 0 | | ㊴ | 4.9 | | ㊴ | 5.2 | | ㊴ | 4.4 | | ㊴ | GND |
| | ㊵ | 0 | | ㊵ | 5.0 | | ㊵ | 4.2 | | ㊵ | 4.4 | IC1502 | ㊵ | 0 |
| | ㊶ | 0 | | ㊶ | GND | | ㊶ | 2.1 | | ㊶ | 4.4 | | ㊶ | 0 |
| | ㊷ | 2.7 | IC004 | ㊷ | GND | | ㊷ | 5.6 | | ㊷ | 4.4 | | ㊷ | -0.3 |
| | ㊸ | 2.7 | | ㊸ | 4.9 | | ㊸ | 3.9 | IC401 | ㊸ | 4.4 | | ㊸ | 4.9 |
| | ㊹ | 4.9 | | ㊹ | 4.9 | | ㊹ | 4.4 | | ㊹ | 9.0 | | ㊹ | -5.1 |
| | ㊺ | 4.9 | | ㊺ | GND | | ㊺ | 3.5 | | ㊺ | 3.8 | | ㊻ | 10.9 |
| | ㊻ | GND | | ㊻ | GND | IC301 | ㊻ | 8.8 | | ㊻ | 4.8 | IC1601 | ㊼ | GND |
| | ㊼ | GND | | ㊼ | GND | | ㊼ | 4.8 | | ㊼ | 4.8 | | ㊽ | 9.0 |
| | ㊽ | 4.7 | IC007 | ㊽ | GND | | ㊽ | 4.8 | | ㊽ | GND | | ㊾ | 11.9 |
| | ㊾ | 0 | | ㊾ | 4.8 | | ㊾ | 0 | | ㊾ | 3.9 | IC1602 | ㊿ | GND |
| | ㊿ | 0 | | ㊿ | 4.8 | | ㊿ | 4.4 | | ㊿ | 3.9 | | (51) | 5.0 |
| | (51) | 4.7 | | (51) | GND | | (51) | 6.1 | | (51) | 1.8 | | | |

## A BOARD

| REF | VOLTAGE | REF | VOLTAGE | REF. | VOLTAGE |
|---|---|---|---|---|---|
| | E GND | | E 5.0 | | E 5.1 |
| Q001 | C 4.8 | Q213 | C 0.3 | Q312 | C 8.8 |
| | B 0 | | B 4.9 | | B 5.7 |
| | E 2.0 | | E 5.0 | | E 4.9 |
| Q002 | C GND | Q214 | C 4.9 | Q313 | C 7.7 |
| | B 3.8 | | B 5.0 | | B 5.3 |
| | E 3.8 | | E GND | | E 0.9 |
| Q003 | C GND | Q216 | C 0 | Q314 | C 4.5 |
| | B 3.8 | | B 0 | | B 15 |
| | E 4.9 | | E GND | | E GND |
| Q004 | C 10 | Q217 | C 0 | Q402 | C 0 |
| | B 5.4 | | B 0 | | B 3.8 |
| | E 4.9 | | E 0 | Q403 | C 28.3 |
| Q005 | C 0.7 | Q218 | C 8.9 | | C 28.2 |
| | B 4.9 | | B 0 | | B 13.2 |
| | E 5.9 | | E 4.5 | Q405 | C 11.9 |
| Q006 | C 0 | Q219 | C 6.2 | | C -13 |
| | B 8.8 | | B 5.1 | | B 11.8 |
| | E GND | | E 4.1 | Q406 | C 11.8 |
| Q007 | C 4.8 | Q220 | C 9.0 | | C -13 |
| | B 0.1 | | B 4.8 | | B 11.9 |
| | E GND | Q226 | E 4.4 | Q408 | C 0 |
| Q008 | C 4.3 | | C 8.4 | | C GND |
| | B 0.1 | | B 5.1 | | B 3.6 |
| | E 5.3 | | E 1.5 | Q409 | C 0 |
| Q009 | C GND | Q301 | C GND | | C GND |
| | B 0 | | B 0.9 | | B 3.6 |
| | E 3.7 | | E 1.5 | Q410 | C 0 |
| Q013 | C 5.0 | Q302 | C GND | | C 0 |
| | B 4.3 | | B 0.9 | | B 4.1 |
| | E GND | | E 3.8 | Q411 | E GND |
| Q015 | C 0 | Q303 | C 8.8 | | C 0 |
| | B -0.2 | | B 4.4 | | B 4.1 |
| | E GND | Q304 | E 3.5 | Q1101 | E GND |
| Q016 | C 0 | | C 8.6 | | C 41 |
| | B -0.2 | | B 3.9 | | B 0 |
| | E GND | | E 3.9 | Q1501 | C 0.1 |
| Q017 | C 0 | Q305 | C 9.2 | | C 14.4 |
| | B -0.2 | | B 8.6 | | B -0.4 |
| | E 0.8 | | E 1.6 | Q2105 | E GND |
| Q201 | C 4.5 | Q306 | C GND | | C 0 |
| | B 1.5 | | B 0.9 | | B 0.6 |
| | E GND | | E 4.3 | Q2106 | E 0.2 |
| Q206 | C 0 | Q307 | C 8.8 | | C 5.0 |
| | B 0 | | B 5.0 | | B 0.2 |
| | E GND | | E 5.1 | | |
| Q207 | C 5.3 | Q308 | C GND | | |
| | B 0 | | B 4.5 | | |
| | E GND | | E 5.1 | | |
| Q209 | C 0 | Q311 | C 8.8 | | |
| | B 0 | | B 4.2 | | |

## A BOARD



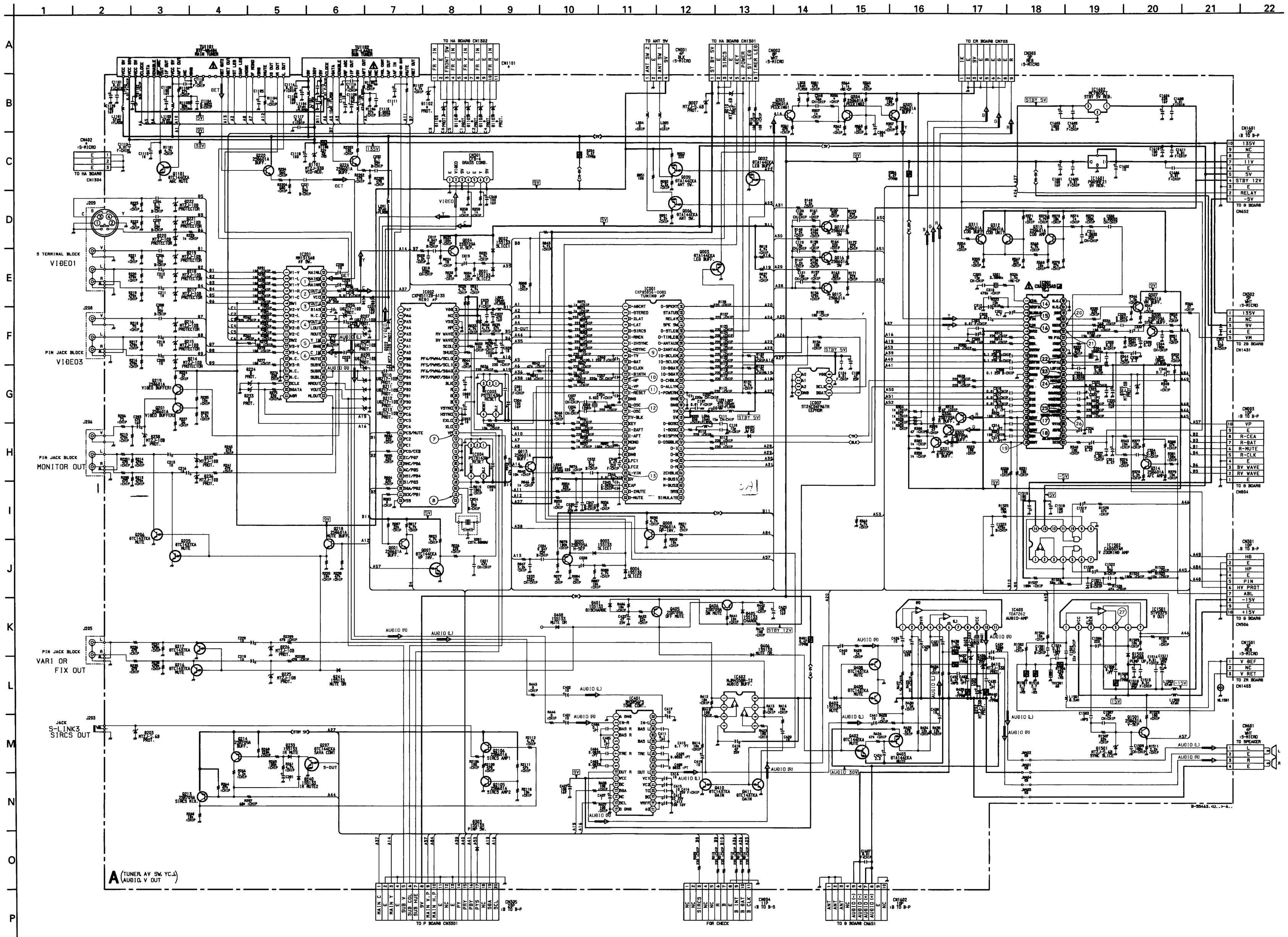

## A BOARD * MARK LIST

| | KP-48S35/53S35/61S35 | KP-46C36 |
|---|---|---|
| CN402 | # | 3P WHT :S-MICRO |
| CN1101 | # | 11P WHT :S-MICRO |
| D1102 | # | UDZ 17-10B |
| D1103 | # | UDZ 17-10B |
| D1104 | # | UDZ 17-10B |
| D1105 | # | UDZ 17-10B |
| D1106 | # | UDZ 17-10B |
| D1107 | # | UDZ 17-10B |
| R262 | # | 82k :CHIP |
| R280 | # | 470 :CHIP |
| R281 | # | 470 :CHIP |
| R282 | # | 470 :CHIP |
| R283 | # | 470 :CHIP |
| R284 | # | 470 :CHIP |
| R285 | # | 470 :CHIP |

# Mark : not mounted

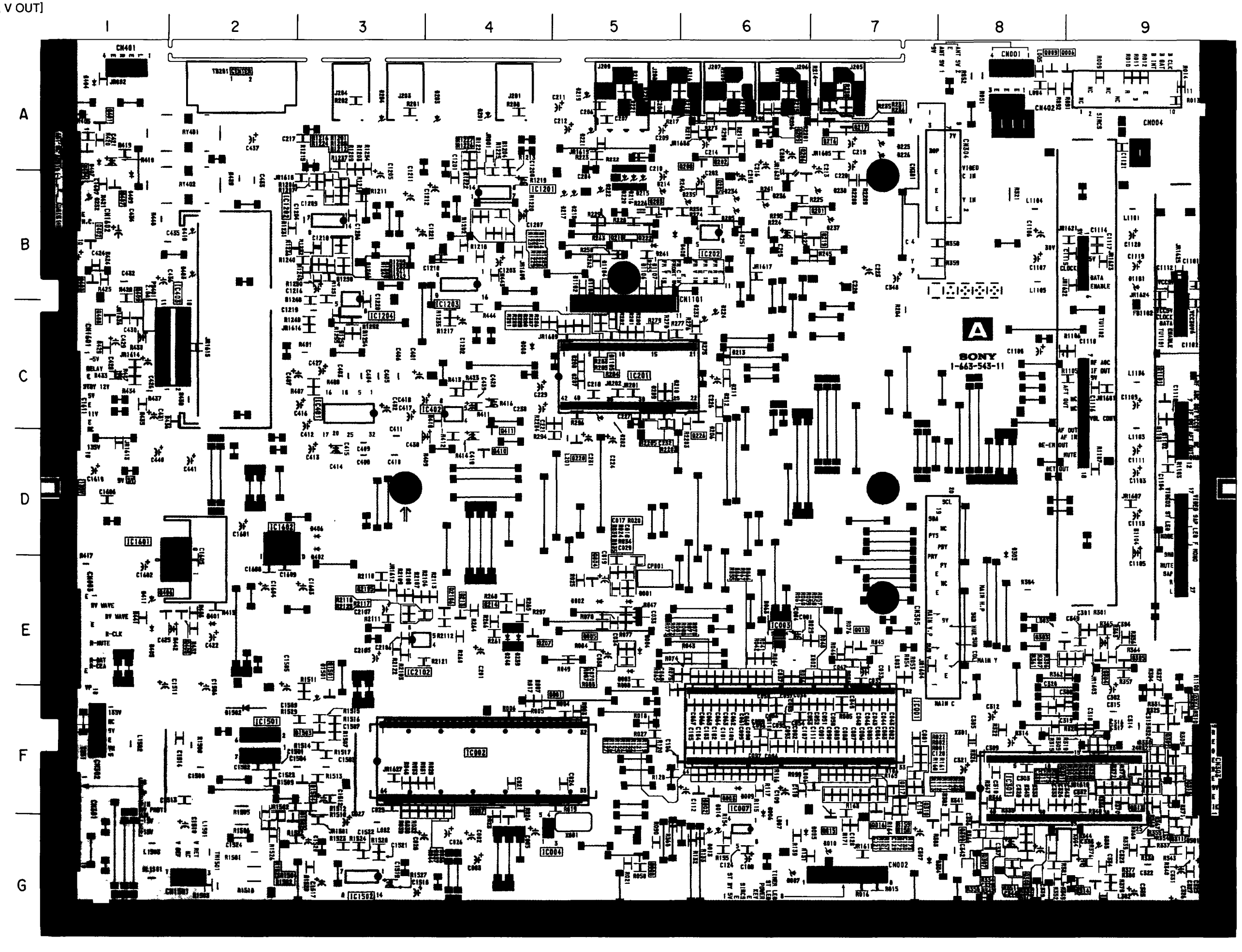
Schematic diagram

A board ➡



**A** [TUNER, AV SW, YCJ, AUDIO, V OUT]

– A BOARD –




## A BOARD

### IC

| | |
|---|---|
| IC001 | F–7 |
| IC002 | F–4 |
| IC003 | E–6 |
| IC004 | G–4 |
| IC007 | G–6 |
| IC201 | C–5 |
| IC301 | F–8 |
| IC401 | C–3 |
| IC402 | C–4 |
| IC403 | C–1 |
| IC1501 | F–2 |
| IC1502 | G–3 |
| IC1601 | D–1 |
| IC1602 | D–2 |

### TRANSISTOR

| | | * |
|---|---|---|
| Q001 | F–5 | ① |
| Q002 | F–6 | ① |
| Q003 | F–6 | ① |
| Q004 | E–5 | ① |
| Q005 | E–5 | ① |
| Q006 | A–8 | ① |
| Q007 | G–4 | ① |
| Q008 | G–5 | ① |
| Q009 | A–8 | ① |
| Q013 | E–7 | ① |
| Q015 | F–7 | ① |
| Q016 | F–7 | ① |
| Q017 | F–7 | ① |
| Q201 | B–6 | ① |
| Q206 | B–6 | ① |
| Q207 | E–4 | ① |
| Q209 | A–6 | ① |
| Q213 | E–4 | ① |
| Q214 | E–4 | ① |
| Q216 | A–7 | ① |
| Q217 | A–7 | ① |
| Q218 | B–5 | ① |
| Q219 | B–7 | ① |
| Q220 | C–5 | ① |
| Q226 | C–6 | ① |
| Q301 | F–9 | ① |
| Q302 | F–9 | ① |
| Q303 | E–8 | ① |
| Q304 | E–9 | ① |
| Q305 | E–9 | ① |
| Q306 | F–9 | ① |
| Q307 | G–8 | ① |
| Q308 | G–8 | ① |
| Q711 | G–9 | ① |
| Q712 | F–9 | ① |
| Q713 | F–9 | ① |
| Q714 | G–9 | ① |
| Q402 | B–1 | ① |
| Q403 | B–1 | ① |
| Q405 | E–2 | ① |
| Q406 | E–1 | ① |
| Q408 | C–1 | ① |
| Q409 | C–1 | ① |
| Q410 | D–4 | ① |
| Q411 | D–4 | ① |
| Q1101 | C–9 | ① |
| Q1501 | F–3 | ① |
| Q2105 | E–3 | ① |
| Q2106 | E–4 | ① |

### DIODE

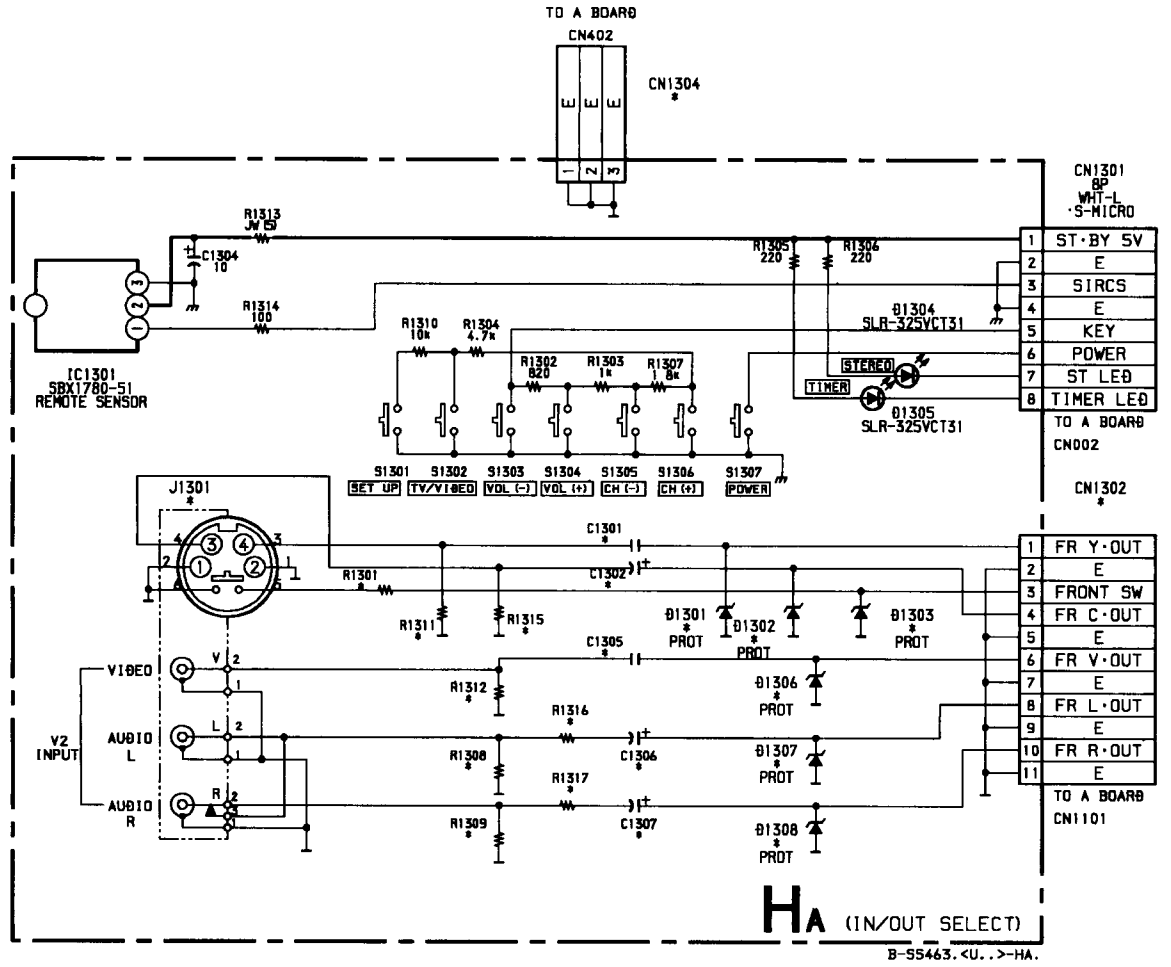
| | | * |
|---|---|---|
| D001 | E–5 | – |
| D002 | E–5 | – |
| D003 | E–5 | – |
| D004 | E–5 | – |
| D007 | G–6 | – |
| D010 | G–7 | – |
| D202 | C–5 | – |
| D203 | A–4 | – |
| D206 | C–6 | ③ |
| D207 | C–5 | ③ |
| D208 | C–5 | ③ |
| D209 | C–5 | ③ |
| D210 | C–5 | ③ |
| D211 | C–6 | ③ |
| D212 | C–6 | ③ |
| D213 | C–6 | ③ |
| D214 | B–5 | – |
| D215 | B–5 | – |
| D216 | B–5 | – |
| D217 | B–5 | – |
| D218 | B–5 | – |
| D219 | A–5 | – |
| D220 | B–5 | – |
| D221 | A–5 | – |
| D222 | B–5 | – |
| D225 | A–7 | – |
| D226 | A–7 | – |
| D232 | B–1 | – |
| D236 | B–6 | – |
| D237 | B–7 | – |
| D238 | B–7 | – |
| D239 | E–4 | – |
| D240 | E–4 | – |
| D241 | B–5 | – |
| D303 | D–8 | – |
| D305 | G–9 | – |
| D401 | E–2 | – |
| D402 | D–3 | – |
| D403 | B–2 | – |
| D405 | E–1 | – |
| D406 | D–3 | – |
| D408 | B–6 | – |
| D410 | B–2 | – |
| D1101 | B–9 | – |
| D1102 | B–5 | ③ |
| D1103 | B–5 | ③ |
| D1104 | B–5 | ③ |
| D1105 | C–5 | ③ |
| D1106 | B–5 | ③ |
| D1107 | B–5 | ③ |
| D1501 | F–3 | – |
| D1502 | F–3 | – |

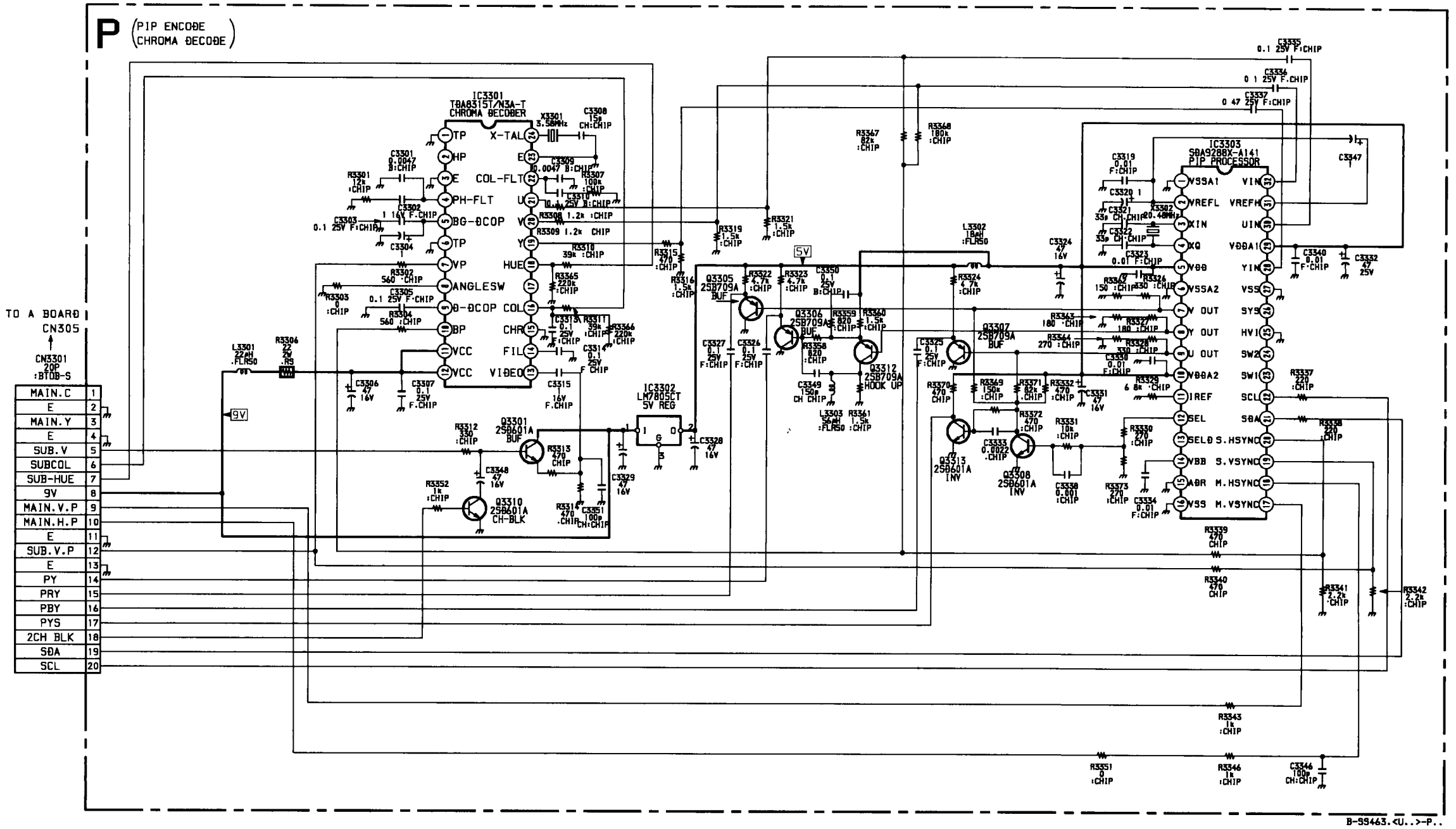






Schematic diagrams
HA, P boards ➡




## P BOARD

| REF. | | VOLTAGE |
|---|---|---|
| Q3301 | E | 6.3 |
| | C | 8.9 |
| | B | 6.9 |
| Q3305 | E | 1.0 |
| | C | GND |
| | B | 0.4 |
| Q3306 | E | 1.3 |
| | C | GND |
| | B | 0.7 |
| Q3307 | E | 1.1 |
| | C | GND |
| | B | 0.5 |
| Q3308 | E | GND |
| | C | 2.9 |
| | B | 0 |
| Q3310 | E | GND |
| | C | 6.5 |
| | B | -0.4 |
| Q3312 | E | 0.6 |
| | C | 0 |
| | B | 0 |
| Q3313 | E | GND |
| | C | 0 |
| | B | 0.8 |

## P BOARD

| REF. | Pin No. | VOLTAGE |
|---|---|---|
| IC3301 | ① | GND |
| | ③ | GND |
| | ④ | 3.8 |
| | ⑤ | 6.6 |
| | ⑥ | GND |
| | ⑦ | 0.1 |
| | ⑧ | 0 |
| | ⑨ | 1.7 |
| | ⑩ | 0.3 |
| | ⑪ | 7.9 |
| | ⑫ | 7.9 |
| | ⑬ | 4.3 |
| | ⑭ | 0 |
| | ⑮ | GND |
| | ⑯ | 0.1 |
| | ⑰ | 2.2 |
| | ⑱ | 4.2 |
| | ⑲ | 2.9 |
| | ⑳ | 2.8 |
| | ㉑ | 4.6 |
| | ㉒ | GND |
| | ㉓ | 2.7 |
| IC3302 | I | 8.9 |
| | G | GND |
| | O | 5.1 |
| IC3303 | ① | GND |
| | ② | 3.0 |
| | ③ | 2.4 |
| | ④ | 2.2 |
| | ⑤ | 5.0 |
| | ⑥ | GND |
| | ⑦ | 0.4 |
| | ⑧ | 0 |
| | ⑨ | 0.5 |
| | ⑩ | 5.0 |
| | ⑪ | 1.9 |
| | ⑫ | 0 |
| | ⑬ | -2.9 |
| | ⑭ | GND |
| | ⑮ | GND |
| | ⑯ | 0.1 |
| | ⑰ | 0.7 |
| | ⑱ | 0.1 |
| | ⑲ | 0.2 |
| | ⑳ | 4.8 |
| | ㉑ | 4.8 |
| | ㉒ | GND |
| | ㉓ | GND |
| | ㉔ | 1.4 |
| | ㉕ | 5.0 |
| | ㉖ | 2.3 |
| | ㉗ | 4.0 |
| | ㉘ | 2.3 |

## HA BOARD * MARK LIST

| | KP-48S35/53S35/ 61S35 | KP-46C36 |
|---|---|---|
| C1301 | # | 0.1 :PT |
| C1302 | # | 0.47 |
| C1305 | # | 0.1 :PT |
| C1306 | # | 10 |
| C1307 | # | 10 |
| CN1302 | # | 11P WHT-L :S-MICRO |
| CN1304 | # | 3P WHT-L :S-MICRO |
| D1301 | # | MTZJ-10 |
| D1302 | # | MTZJ-10 |
| D1303 | # | MTZJ-10 |
| D1306 | # | MTZJ-10 |
| D1307 | # | MTZJ-10 |
| D1308 | # | MTZJ-10 |
| J1301 | # | TERMINAL BLOCK ,S |
| R1301 | # | 4.7k |
| R1308 | # | 470k |
| R1309 | # | 470k |
| R1311 | # | 75 |
| R1312 | # | 75 |
| R1315 | # | 75 |
| R1316 | # | JW (5) |
| R1317 | # | JW (5) |

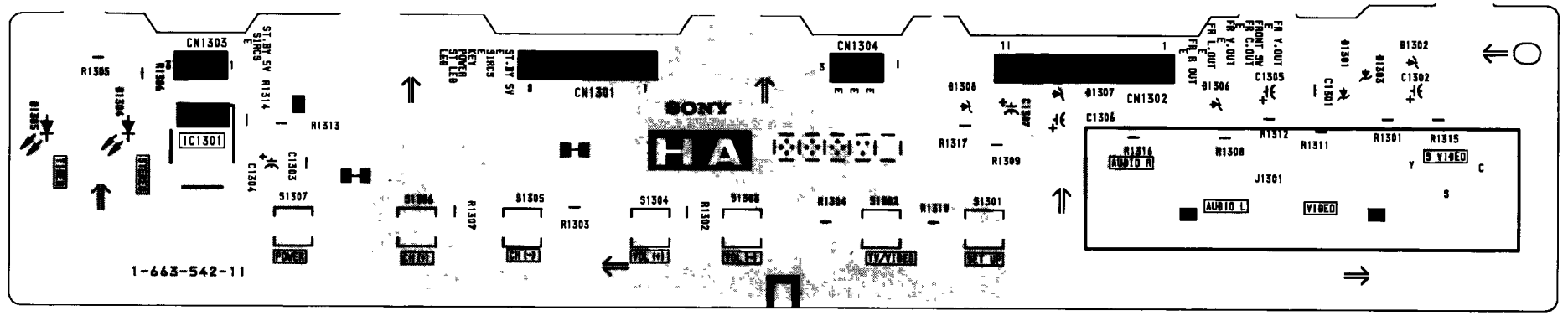
# Mark : not mounted

## HA BOARD

| REF. | Pin No. | VOLTAGE |
|---|---|---|
| IC1301 | ① | 5.0 |
| | ② | 5.0 |
| | ③ | GND |

## HA [IN/OUT SELECT]

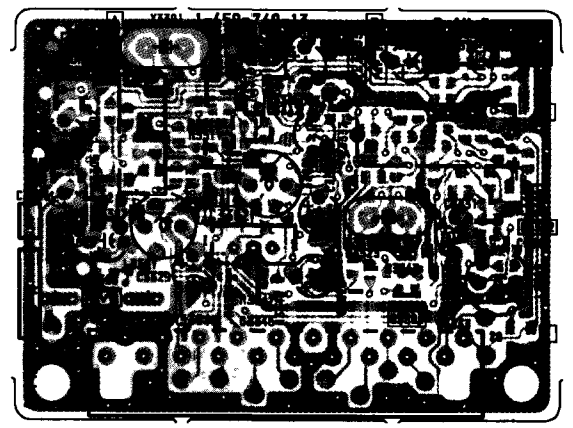
– HA BOARD –



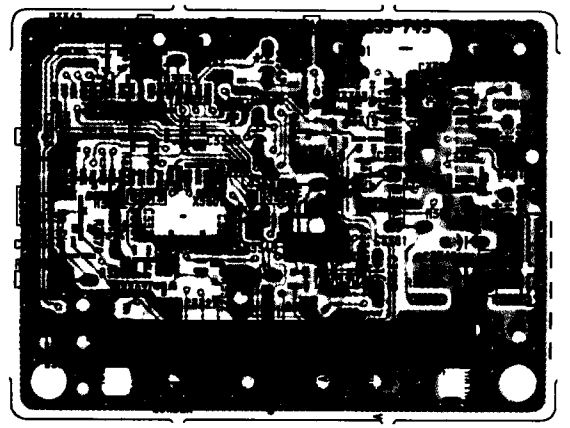

• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

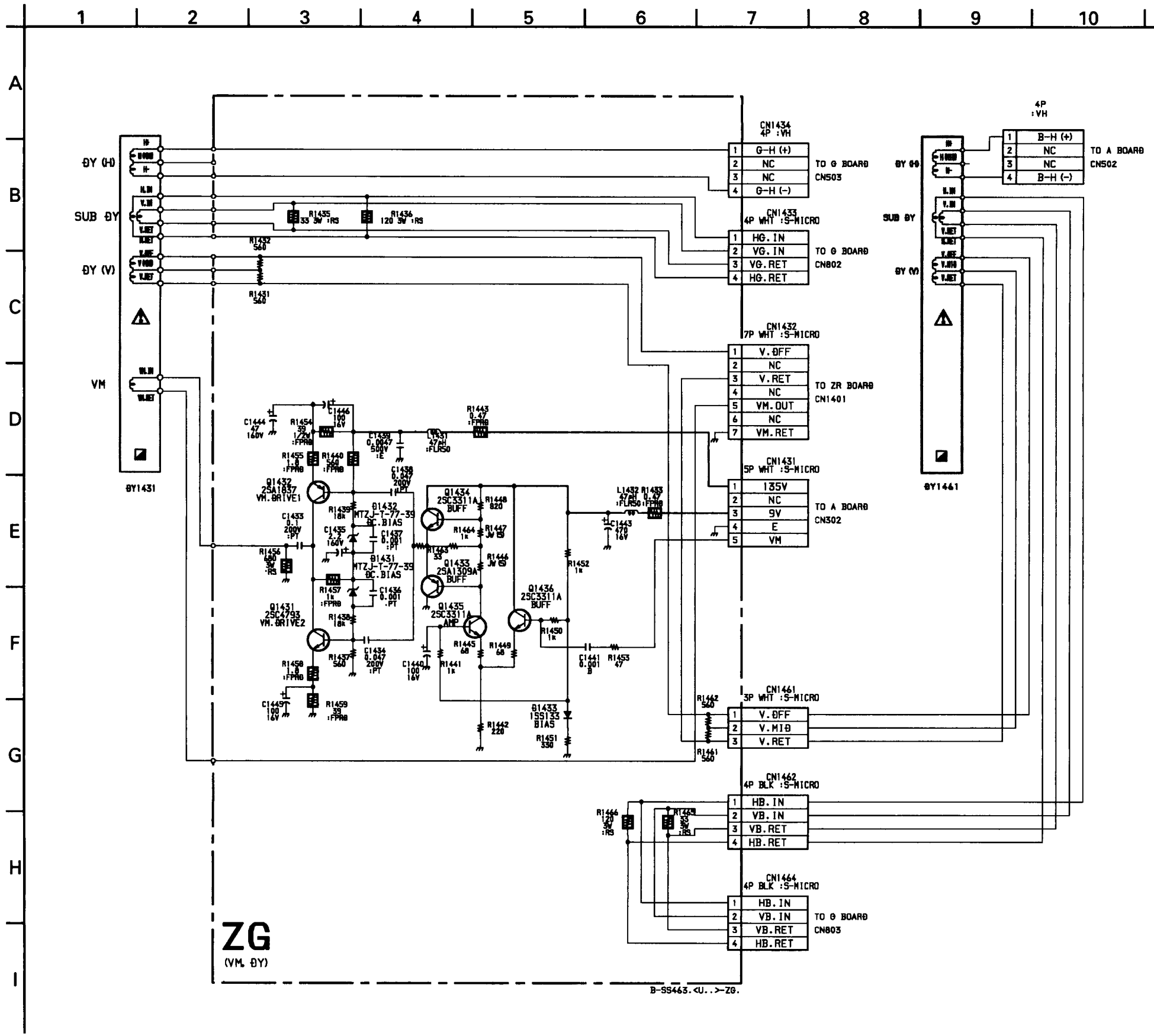
## P [PIP ENCODE, CHROMA DECODE]

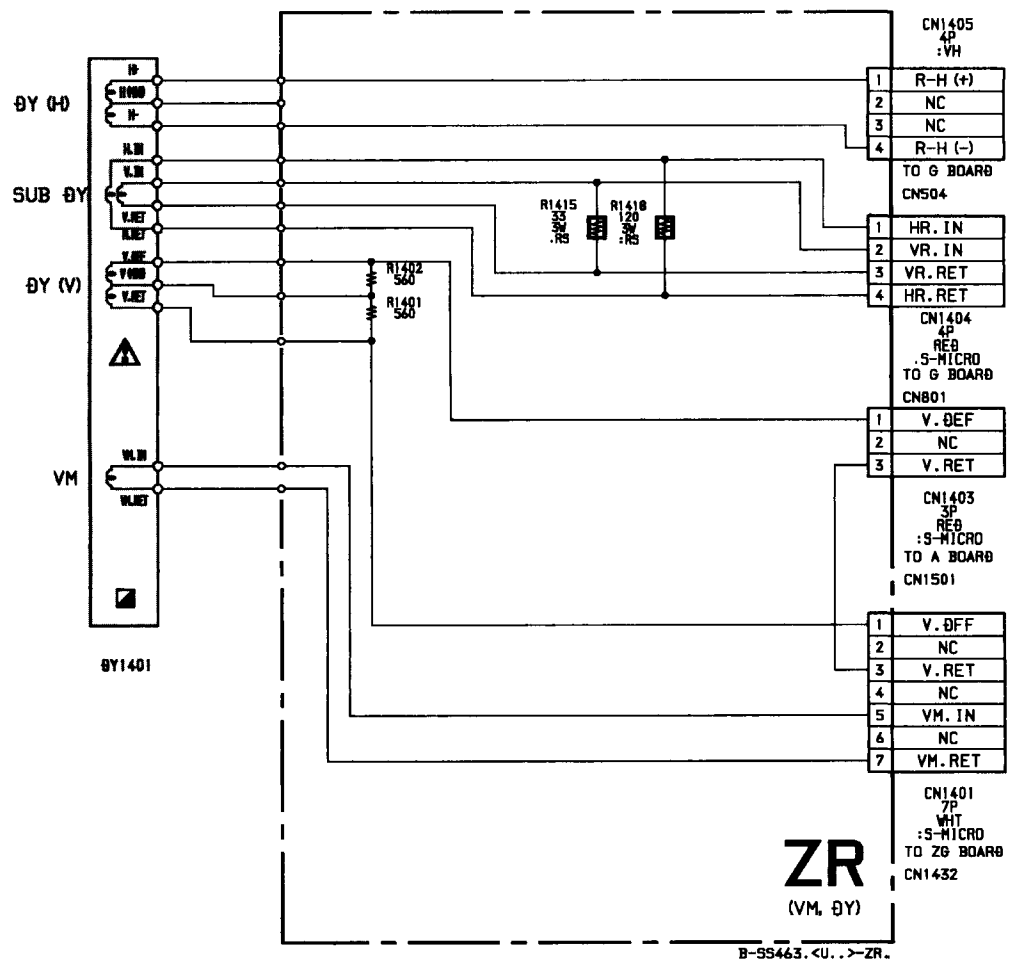
– P BOARD – <Component Side>



<Conductor Side>

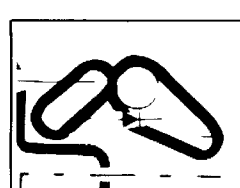





**ZG BOARD**

| REF. | | VOLTAGE |
|---|---|---|
| Q1431 | E | 0.5 |
| | C | 67.2 |
| | B | 0.9 |
| Q1432 | E | 138.4 |
| | C | 67.2 |
| | B | 134.4 |
| Q1433 | E | 5.8 |
| | C | GND |
| | B | 5.7 |
| Q1434 | E | 5.8 |
| | C | 9.0 |
| | B | 5.7 |
| Q1435 | E | 2.1 |
| | C | 5.7 |
| | B | 2.7 |
| Q1436 | E | 2.1 |
| | C | 9.0 |
| | B | 2.7 |

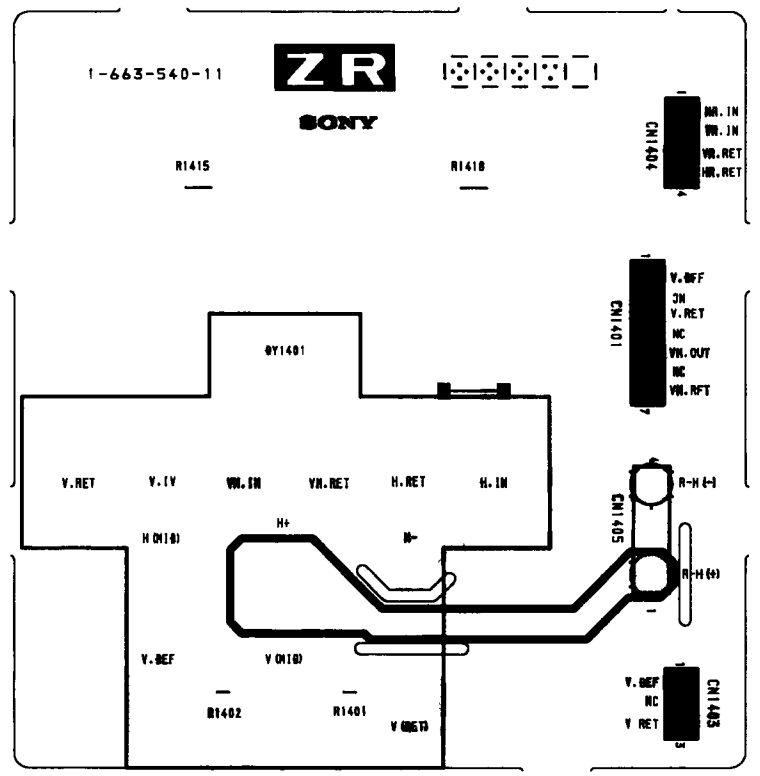


**NOTE:**
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

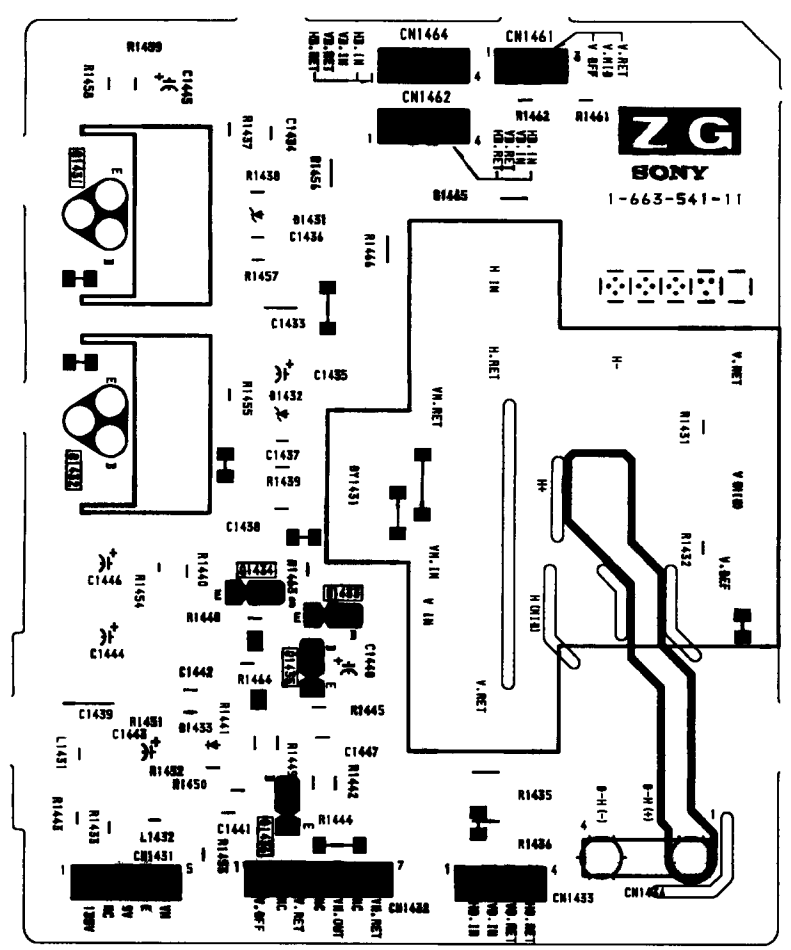
**Schematic diagrams**
← ZG, ZR boards

ZR [VM, DY] ZG [VM, DY]

– ZR BOARD –

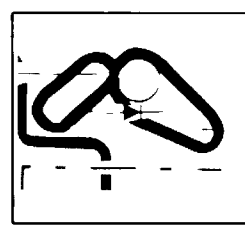



– ZG BOARD –



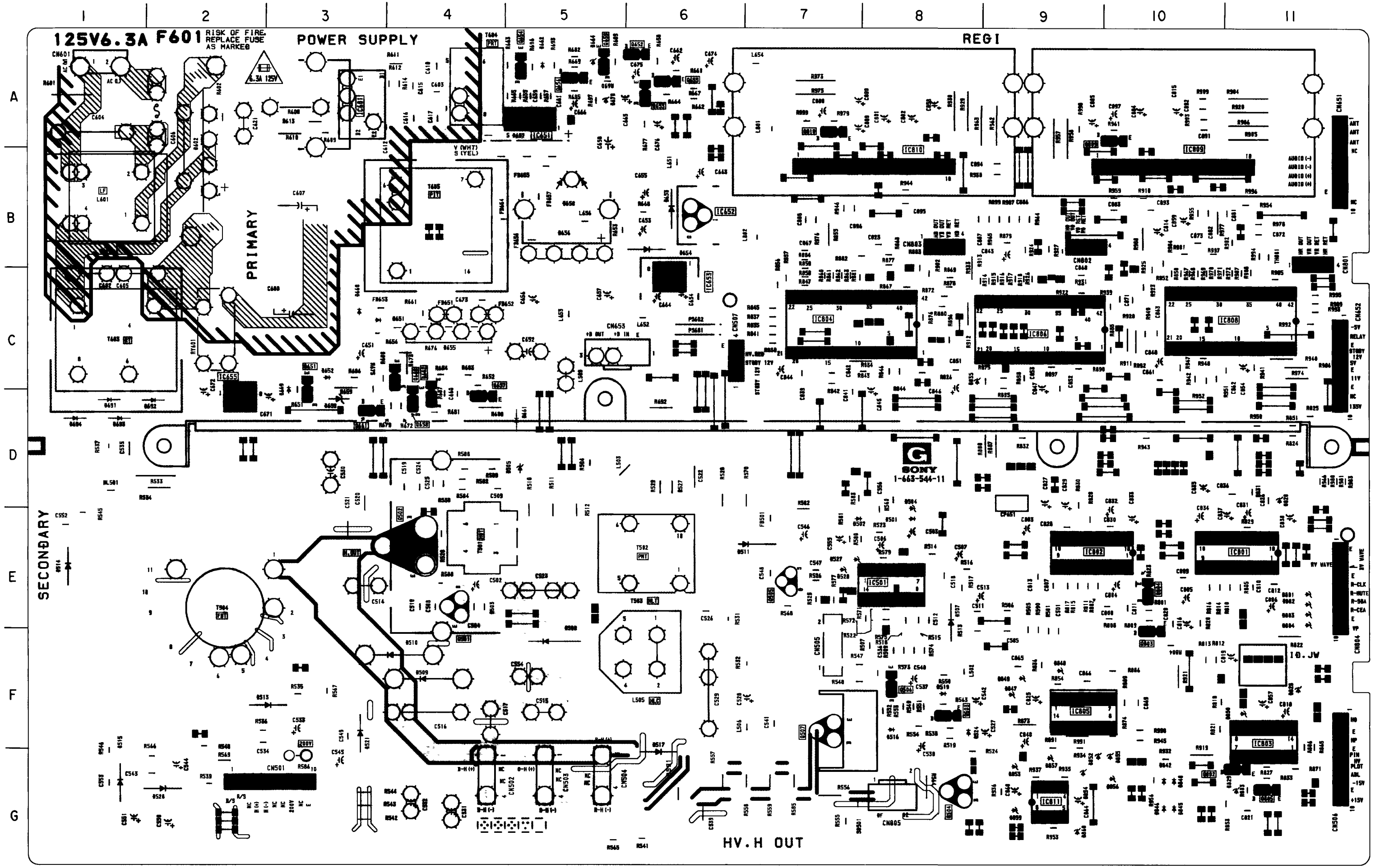
## G BOARD

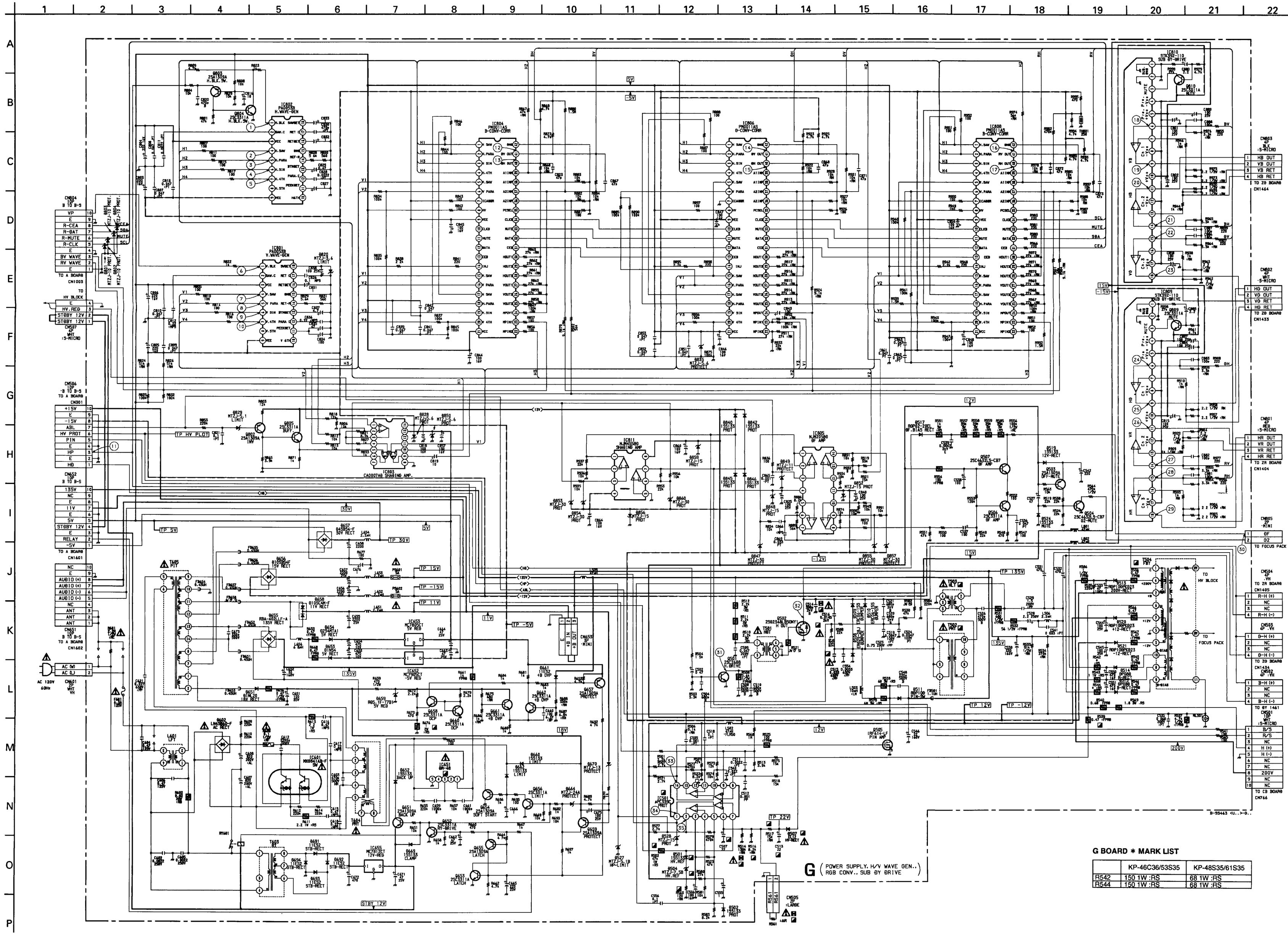
| IC | |
|---|---|
| IC501 | E–8 |
| IC601 | A–3 |
| IC651 | A–5 |
| IC652 | B–6 |
| IC653 | C–6 |
| IC655 | C–2 |
| IC801 | E–11 |
| IC802 | E–9 |
| IC803 | F–11 |
| IC804 | C–7 |
| IC805 | F–9 |
| IC806 | C–9 |
| IC808 | C–11 |
| IC809 | B–10 |
| IC810 | B–8 |
| IC811 | G–9 |
| **TRANSISTOR** | |
| Q501 | E–4 |
| Q502 | E–4 |
| Q503 | F–8 |
| Q504 | G–8 |
| Q505 | E–7 |
| Q506 | F–8 |
| Q507 | F–7 |
| Q651 | C–3 |
| Q652 | A–6 |
| Q653 | A–6 |
| Q654 | A–5 |
| Q655 | A–6 |
| Q656 | A–5 |
| Q657 | D–4 |
| Q658 | D–4 |
| Q659 | A–5 |
| Q660 | C–4 |
| Q661 | D–3 |
| Q662 | C–4 |
| Q802 | G–11 |
| Q803 | F–10 |
| Q804 | E–10 |
| Q805 | G–11 |
| Q809 | A–10 |
| Q810 | A–7 |
| **DIODE** | |
| D501 | E–8 |
| D502 | E–8 |
| D504 | D–8 |
| D507 | E–8 |
| D508 | F–5 |
| D509 | F–4 |
| D510 | F–4 |
| D511 | E–7 |
| D513 | F–2 |
| D514 | E–1 |
| D515 | G–1 |
| D517 | G–6 |
| D519 | F–8 |
| D520 | G–2 |
| D521 | F–3 |
| D524 | F–8 |
| D527 | E–7 |
| D528 | E–7 |
| D602 | A–2 |
| D651 | C–3 |
| D652 | C–3 |
| D653 | B–6 |
| D654 | B–6 |
| D655 | C–4 |
| D656 | B–5 |
| D657 | A–5 |
| D658 | B–5 |
| D659 | D–3 |
| D660 | C–3 |
| D661 | D–5 |
| D662 | A–5 |
| D664 | A–5 |
| D669 | C–3 |
| D670 | A–5 |
| D691 | D–1 |
| D692 | D–2 |
| D693 | D–1 |
| D694 | D–1 |
| D801 | E–11 |
| D802 | E–11 |
| D803 | E–11 |
| D804 | E–11 |
| D820 | D–11 |
| D828 | F–11 |
| D829 | G–11 |
| D835 | C–8 |
| D840 | G–10 |
| D842 | G–10 |
| D845 | G–10 |
| D846 | G–10 |
| D847 | F–9 |
| D848 | F–9 |
| D849 | F–9 |
| D850 | F–11 |
| D852 | G–9 |
| D853 | G–9 |
| D854 | G–9 |
| D855 | G–10 |
| D856 | G–10 |
| D857 | G–9 |
| D859 | G–9 |
| D860 | G–9 |



**NOTE:**
The circuit indicated as left contains high voltage of over 600 Vp-p Care must be paid to prevent an electric shock in inspection or repairing.

– G BOARD –





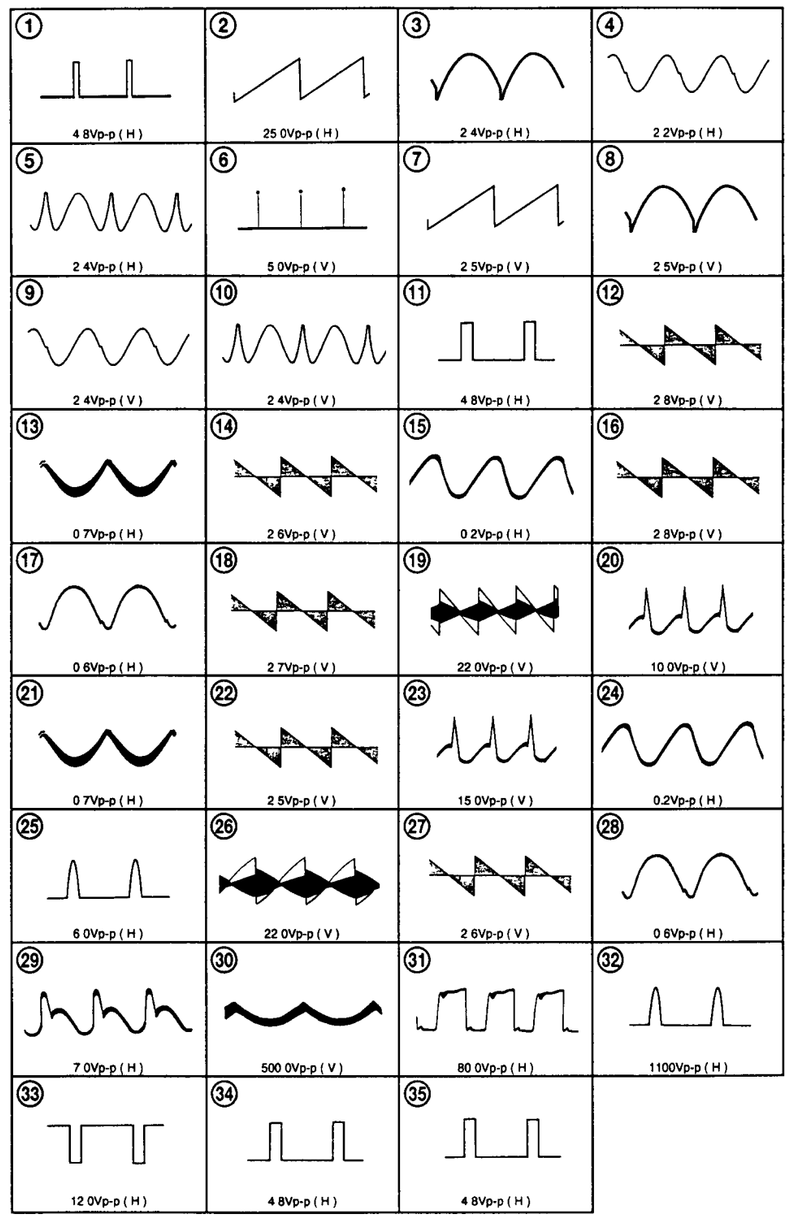

## G BOARD

| REF | Pin No. | VOLTAGE | REF | Pin No. | VOLTAGE | REF | Pin No. | VOLTAGE | REF | Pin No. | VOLTAGE | REF | Pin No. | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IC501 | ① | 3.4 | IC602 | ① | 0 | IC804 | ① | 0.1 | IC806 | ① | 0 | IC808 | ① | 0 |
| | ② | 0.7 | | ② | -0.9 | | ② | 4.9 | | ② | 0 | | ② | 0 |
| | ③ | 12.1 | | ③ | 0 | | ③ | 4.8 | | ③ | 0.4 | | ③ | -0.2 |
| | ④ | 3.3 | | ④ | -1.0 | | ④ | 0 | | ④ | 4.7 | | ④ | 0.4 |
| | ⑤ | 1.8 | | ⑤ | -5.1 | | ⑤ | 0 | | ⑤ | 0.1 | | ⑤ | GND |
| | ⑥ | 7.9 | | ⑥ | 0 | | ⑥ | 4.9 | | ⑥ | 4.9 | | ⑥ | GND |
| | ⑦ | 8.1 | | ⑦ | -0.9 | | ⑦ | 4.8 | | ⑦ | 4.8 | | ⑦ | GND |
| | ⑧ | 1.4 | | ⑧ | 0.3 | | ⑧ | 0 | IC805 | ① | 0 | | ⑧ | -14.3 |
| | ⑨ | 2.2 | | ⑨ | 1.2 | | ⑨ | 0 | | ② | 0 | | ⑨ | -15.3 |
| | ⑩ | 5.5 | | ⑩ | GND | | ⑩ | 0.2 | | ③ | 0 | | ⑩ | 14.5 |
| | ⑪ | 1.8 | | ⑪ | -1.9 | | ⑪ | GND | | ④ | 0 | | ⑪ | -0.1 |
| | ⑫ | GND | | ⑫ | -1.1 | | ⑫ | 7.2 | | ⑤ | 0 | | ⑫ | -0.1 |
| | ⑬ | 1.4 | | ⑬ | -0.4 | | ⑬ | 7.2 | | ⑥ | 0.1 | | ⑬ | -15.3 |
| | ⑭ | 9.9 | | ⑭ | -0.4 | | ⑭ | 7.0 | | ⑦ | GND | IC809 | ① | -0.2 |
| IC601 | ① | GND | | ⑮ | -0.3 | | ⑮ | 12.1 | | ⑧ | 0 | | ② | 14.5 |
| | ② | -1.9 | | ⑯ | -0.3 | | ⑯ | 0 | | ⑨ | -0.9 | | ③ | 0.5 |
| | ③ | 136.0 | | ⑰ | 1.6 | | ⑰ | 0 | | ⑩ | -0.9 | | ④ | -15.3 |
| | ④ | 274.0 | | ⑱ | 0.3 | | ⑱ | 0 | | ⑪ | 0 | | ⑤ | 0.3 |
| | ⑤ | 136.0 | IC803 | ① | GND | | ⑲ | 0 | | ⑫ | -1.0 | | ⑥ | 0.3 |
| | ⑥ | 134.0 | | ② | 0 | | ⑳ | 0 | | ⑬ | 0 | | ⑦ | -0.2 |
| | ⑦ | 134.0 | | ③ | 0 | | ㉑ | 0 | | ⑭ | -0.4 | | ⑧ | -0.2 |
| | ⑧ | 2.4 | | ④ | 0 | | ㉒ | -12.3 | | ⑮ | 0 | | ⑨ | -15.3 |
| IC651 | ① | 13.8 | | ⑤ | 0 | | ㉓ | 0 | | ⑯ | 4.9 | | ⑩ | -0.4 |
| | ② | GND | | ⑥ | 4.9 | | ㉔ | 0 | | ⑰ | -5.1 | | ⑪ | GND |
| IC652 | ① | -11.7 | | ⑦ | -5.1 | | ㉕ | 0.8 | | ⑱ | 4.8 | | ⑫ | GND |
| | ② | GND | | ⑧ | 0 | | ㉖ | 0 | | ⑲ | 4.9 | | ⑬ | -14.5 |
| | ③ | -5.1 | | ⑨ | -0.9 | | ㉗ | -0.9 | | ⑳ | 0.1 | | ⑭ | -15.3 |
| IC653 | ① | 10.6 | | ⑩ | 0 | | ㉘ | 0 | | ㉑ | 4.7 | | ⑮ | 14.5 |
| | ② | GND | | ⑪ | -1.0 | | ㉙ | -1.0 | | ㉒ | -2.1 | | ⑯ | 0.2 |
| IC655 | ① | 4.9 | | ⑫ | 0 | | ㉚ | 0 | | ㉓ | 0 | | ⑰ | -15.3 |
| | ② | 15.7 | | ⑬ | -0.4 | | ㉛ | -0.4 | | ㉔ | -0.8 | | ⑱ | 0.3 |
| | ③ | GND | | ⑭ | -5.1 | | ㉜ | GND | | ㉕ | 0 | | ⑲ | 14.5 |
| | ④ | 11.9 | | ⑮ | 4.9 | | ㉝ | 4.9 | | ㉖ | -0.9 | IC810 | ① | 0.1 |
| IC801 | ① | 0.2 | | ⑯ | -5.1 | | ㉞ | -5.1 | | ㉗ | 0 | | ② | -15.3 |
| | ② | 1.2 | | ⑰ | -2.2 | | ㉟ | 4.8 | | ㉘ | 4.9 | | ③ | 0 |
| | ③ | 4.9 | | ⑱ | 0 | | ㊱ | 0.1 | | ㉙ | 0.1 | | ④ | 0 |
| | ④ | 0 | | ⑲ | 0.8 | | ㊲ | 4.7 | | ㉚ | 0 | | ⑤ | 0.1 |
| | ⑤ | -0.8 | | ⑳ | 0 | | ㊳ | -2.1 | | ㉛ | 4.9 | | ⑥ | -15.3 |
| | ⑥ | 0 | IC804 | ① | -0.9 | IC806 | ① | 0 | | ㉜ | -0.4 | | ⑦ | 0.2 |
| | ⑦ | -1.1 | | ② | 0 | | ② | -0.9 | | ㉝ | 0 | | ⑧ | 14.5 |
| | ⑧ | -5.1 | | ③ | -0.5 | | ③ | -0.8 | | ㉞ | -0.4 | IC811 | ① | 0 |
| | ⑨ | 0.4 | | ④ | 4.9 | | ④ | 0 | | ㉟ | GND | | ② | -12.3 |
| | ⑩ | -0.9 | | ⑤ | 0 | | ⑤ | -0.9 | | ㊱ | 4.9 | | ③ | GND |
| | ⑪ | 0.3 | | ⑥ | -0.1 | | ⑥ | 0 | | ㊲ | -5.1 | | ④ | 0 |
| | ⑫ | 1.2 | | ⑦ | 0 | | ⑦ | -0.5 | | ㊳ | 4.8 | | ⑤ | 0.6 |
| | ⑬ | GND | | ⑧ | -0.4 | | ⑧ | 4.9 | | ㊴ | 0.1 | | ⑥ | 12.1 |
| | ⑭ | -1.5 | | ⑨ | 0 | | ⑨ | -0.4 | | ㊵ | 4.9 | | | |
| | ⑮ | 1.2 | | ⑩ | 0 | | ⑩ | 0 | | ㊶ | 0 | | | |
| | ⑯ | -1.6 | | ⑪ | 0 | | ⑪ | 0 | | ㊷ | 0 | | | |
| | ⑰ | 0.5 | | ⑫ | 0 | | ⑫ | 0 | | ㊸ | 0 | | | |
| IC802 | ① | 1.1 | | ⑬ | 0.5 | | ⑬ | 0 | | ㊹ | 0 | | | |
| | ② | 4.9 | | ⑭ | 4.7 | | ⑭ | 0 | | ㊺ | 0 | | | |

## G BOARD

| REF | VOLTAGE | REF | VOLTAGE |
|---|---|---|---|
| Q501 | E GND | Q658 | E 0.4 |
| | C 47.0 | | C 4.9 |
| | B -0.4 | | B 0.6 |
| Q502 | E GND | Q659 | E 17.6 |
| | C 140.0 | | C 0 |
| | B 0 | | B 17.6 |
| Q505 | G 9.9 | Q660 | E GND |
| | D 21.9 | | C 0.6 |
| | S GND | | B 0.6 |
| Q506 | E 1.1 | Q661 | E 2.4 |
| | C 11.3 | | C 5.2 |
| | B 1.7 | | B 3.1 |
| Q507 | E 11.5 | Q662 | E 2.4 |
| | C 780.0 | | C 4.9 |
| | B 12.1 | | B 2.7 |
| Q651 | E 11.9 | Q802 | E 4.9 |
| | C 11.9 | | C 2.3 |
| | B 11.2 | | B 4.0 |
| Q652 | E GND | Q803 | E 2.4 |
| | C 0 | | C 0 |
| | B 0.7 | | B 0.5 |
| Q653 | E GND | Q804 | E GND |
| | C 1.7 | | C 0.5 |
| | B 0 | | B 0 |
| Q654 | E 14.0 | Q805 | E 1.7 |
| | C GND | | C 12.1 |
| | B 13.6 | | B 2.3 |
| Q655 | E 1.7 | Q809 | E -15.3 |
| | C 0 | | C -14.3 |
| | B 1.7 | | B -15.3 |
| Q656 | E GND | Q810 | E -15.3 |
| | C 13.6 | | C -14.5 |
| | B 0 | | B -15.3 |
| Q657 | E 0 | | |
| | B 4.9 | | |

## G BOARD




## G BOARD * MARK LIST

| | KP-46C36/53S35 | KP-48S35/61S35 |
|---|---|---|
| R542 | 150 1W :RS | 68 1W :RS |
| R544 | 150 1W :RS | 68 1W :RS |

**NOTE:**
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

**CR BOARD**

| REF. | Pin No. | VOLTAGE |
|---|---|---|
| IC701 | ③ | 2.6 |
| | ④ | GND |
| | ⑤ | 4.1 |
| | ⑥ | 196.5 |
| | ⑦ | 137.1 |
| | ⑧ | 135.0 |

**CR BOARD**

| REF. | | VOLTAGE |
|---|---|---|
| Q701 | E | 4.4 |
| | C | 0 |
| | B | 4.1 |
| Q702 | E | 2.2 |
| | C | GND |
| | B | 1.9 |

**CR** [R OUT]

– CR BOARD –

**CG BOARD**

| REF. | Pin No. | VOLTAGE |
|---|---|---|
| IC731 | ③ | 2.5 |
| | ④ | GND |
| | ⑤ | 3.5 |
| | ⑥ | 199.6 |
| | ⑦ | 145.0 |
| | ⑧ | 144.6 |

**CG** [G OUT]

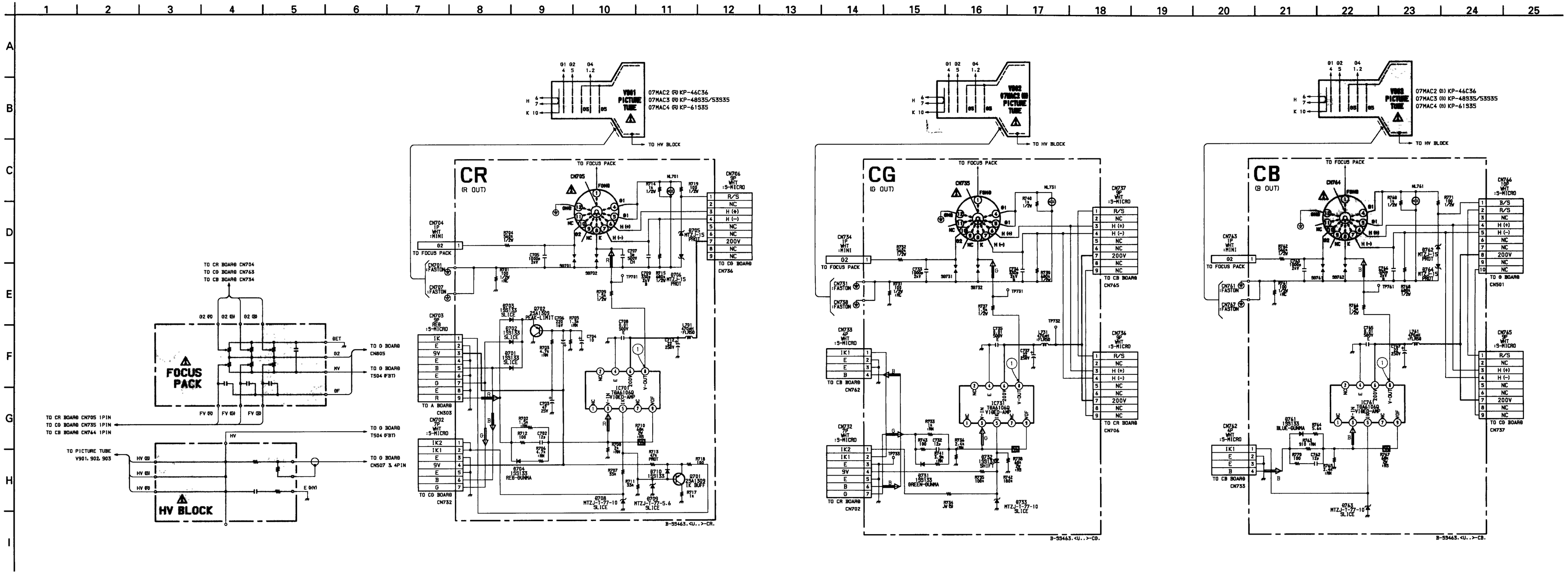
– CG BOARD –

**CB BOARD**

| REF. | Pin No. | VOLTAGE |
|---|---|---|
| IC761 | ③ | 2.5 |
| | ④ | GND |
| | ⑤ | 4.9 |
| | ⑥ | 196.6 |
| | ⑦ | 113.0 |
| | ⑧ | 109.7 |

**CB** [B OUT]

– CB BOARD –

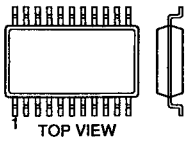



Schematic diagram
← G board

Schematic diagrams
CB, CG, CR boards →

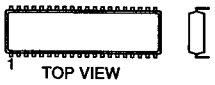
## 6-5. SEMICONDUCTORS

**BH3856FS-E2**
**SDA9288X-A141**



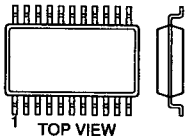

32pin SOP

**CA0007AD**
**NJM2058D**
**µPC339C**




14pin DIP

**CA0007AM**

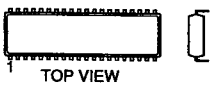



14pin SOP

**CXA2025AS**

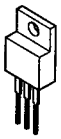
48pin DIP

**CXP85112B-613S**
**CXP85856-005S**

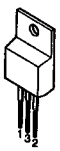



64pin DIP

**LM7805CT**
**MC7805CT**
**MC7812CT**
**PQ09RF21**
**TA7805S**
**TA7812S**



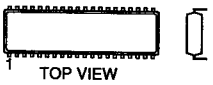
**MC7905CT**



**MM1313AD**
**PM0011AS**

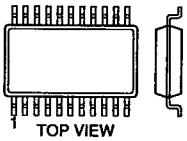
42pin DIP

**M5218AP**
**NJM4558D**




8pin DIP

**NJM4558M-T2**
**ST24C04FM6TR**
**µPC4558G2**
**X24C04S8**

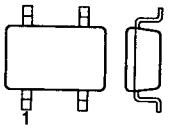



8pin SOP

**PA0053B**

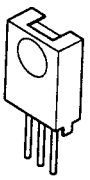
18pin DIP

**PST9143NL**

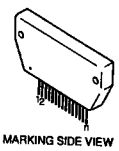


5pin chip

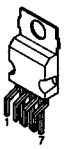
**SBX1780-51**



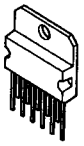
**STK392-110**



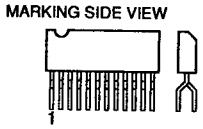

**STV9379**



**TDA2009A**

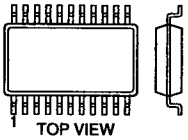


**TDA6106Q**



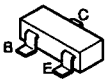

9pin ZIP

**TDA8315T/N3A-T**




24pin SOP

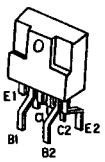
**DTA144EKA-T146**
**DTC143TKA-T146**
**DTC144EKA-T146**
**2SA1162G**
**2SB709A-QRS-TX**
**2SD601A-Q**
**2SD601A-QRS-TX**



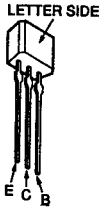

**IRF614**
**IRF614-LF**

**MC780CT**
**2SA1837**
**2SC4793**

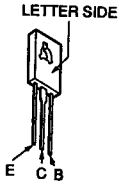
**MX0841-AB-F**



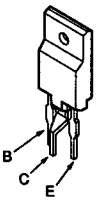

**2SA1175-HFE**
**2SA1309A-QRSTA**
**2SC2785-HFE**
**2SC3311A-QRSTA**




**2SC2688-LK**

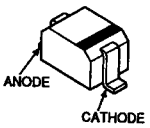



**2SC4632LS-CB7**

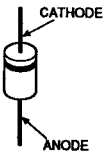



**2SD2348 (LB SONY-1)**

**DTZ10B**
**UDZ-TE-17-10B**




**D1NL20**
**EL1Z**
**GP08D**
**GP08DPKG23**
**RGP02-20EL-6394**
**RGP10GPKG23**



D1NS4
HZS9.1NB2
MTZJ-30A
MTZJ-33B
MTZJ-7.5B
MTZJ-T-77-10
MTZJ-T-77-10B
MTZJ-T-11
MTZJ-T-15
MTZJ-T-20A
MTZJ-T-24A
MTZJ-T-3.6
MTZJ-T-30
MTZJ-T-33B
MTZJ-T-39
MTZJ-T-5.1
MTZJ-T-5.1B
MTZJ-T-5.6
MTZJ-T-5.6B
MTZJ-T-7.5B
MTZJ-T-9.1B
RD10ESB2
RD11ES-B2
RD20ES-B2
RD24ES-B
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RD39ES-B2
RD5.1ES-B1
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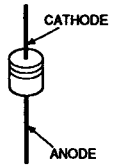
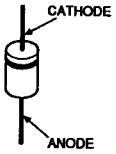
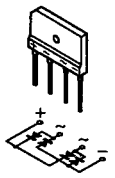
RD5.6ESB2
11ES2




D2S4MF
D2SMTA1

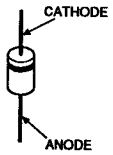



D4SBS4-F
D10SBS4F
LN4SB60
RBA-402LLF-A

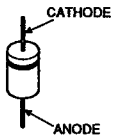



D10SC4M

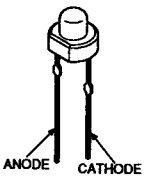
ERC06-15S
1SS133T-77




ERD29-08J




SLR-325VCT31



# SECTION 7
# EXPLODED VIEWS

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

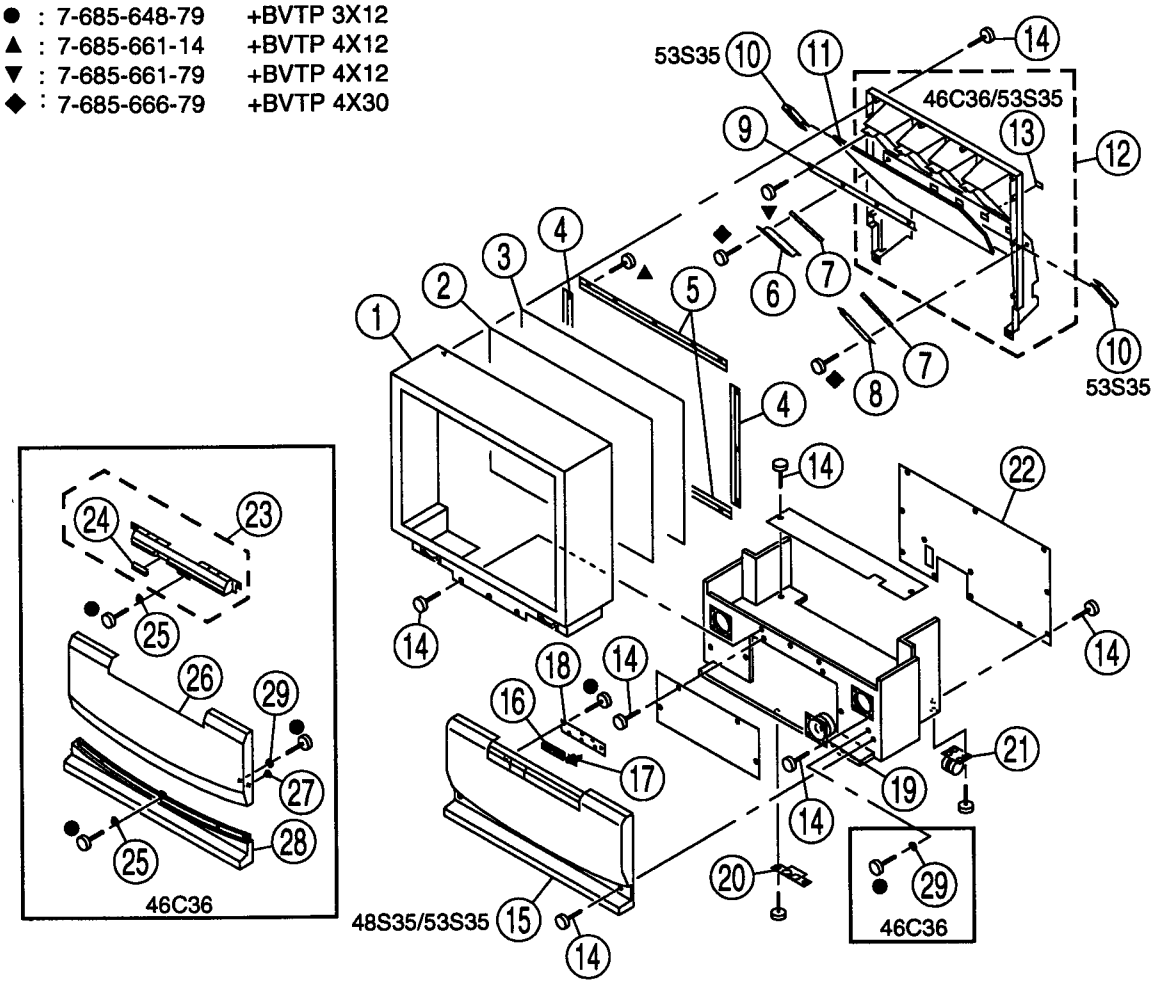
Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

## 7-1. COVER (KP-46C36/48S35/53S35)

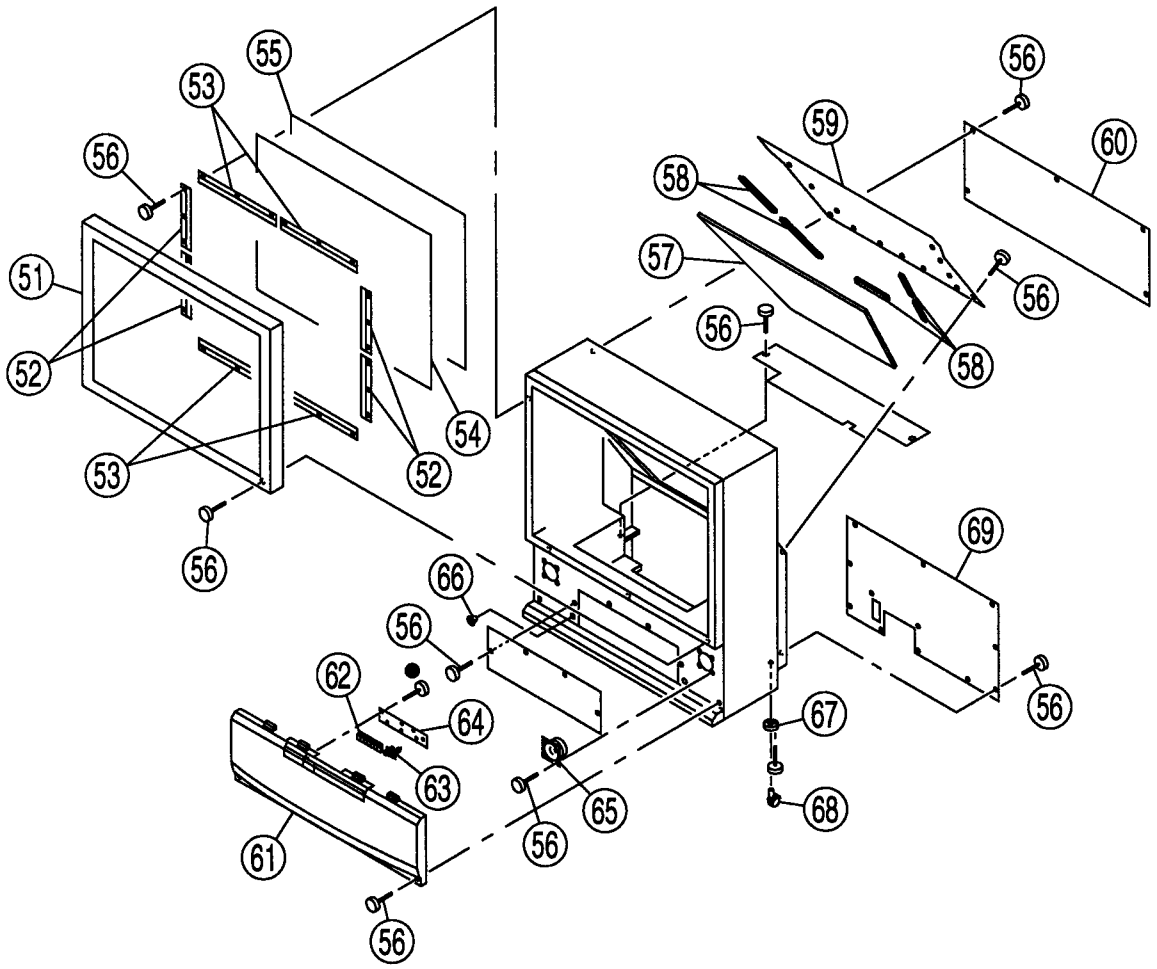
● : 7-685-648-79 +BVTP 3X12
▲ : 7-685-661-14 +BVTP 4X12
▼ : 7-685-661-79 +BVTP 4X12
◆ : 7-685-666-79 +BVTP 4X30




| REF. NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| 1 | X-4032-998-1 | BEZNET ASSY (46C36) | |
| | X-4032-999-2 | BEZNET ASSY (53S35) | |
| | X-4034-438-1 | BEZNET ASSY (48S35) | |
| 2 | 4-036-466-11 | PLATE (L), DIFFUSION (53S35) | |
| | 4-037-360-11 | PLATE (L), DIFFUSION (46C36) | |
| | 4-058-454-11 | PLATE (L), DIFFUSION (48S35) | |
| 3 | 4-036-469-11 | PLATE (F), DIFFUSION (53S35) | |
| | 4-057-324-11 | PLATE (F), DUFFUSION (46C36) | |
| | 4-058-455-11 | PLATE (F), DIFFUSION (48S35) | |
| 4 | * 4-048-152-01 | HOLDER (S), SCREEN (46C36/48S35) | |
| | * 4-048-152-11 | HOLDER (S), SCREEN (53S35) | |
| 5 | * 4-048-159-01 | HOLDER (L), SCREEN (46C36) | |
| | * 4-048-159-11 | HOLDER (L), SCREEN (48S35/53S35) | |
| 6 | * 4-051-790-02 | HOLDER, MIRSD (L) | |
| 7 | * 4-049-098-01 | CUSHION | |
| 8 | * 4-051-789-02 | HOLDER, MIRSD (R) | |
| 9 | * 4-037-351-01 | HOLDER, MIRROR | |
| 10 | 4-033-775-41 | PROTECTOR, MIRROR (53S35) | |
| 11 | 4-048-181-01 | MIRROR (53), REFLECTION (53S35) | |
| | 4-048-182-01 | MIRROR (46) (46C36) | |
| | 4-058-545-01 | MIRROR (48), REFLECTION (48S35) | |
| 12 | * 4-057-610-01 | COVER, MIRROR (48S35) | |
| 12 | * X-4032-619-1 | COVER ASSY, MIRROR (46C36) | 13 |
| | * X-4032-620-1 | COVER ASSY, MIRROR (53S35) | 13 |
| 13 | 4-048-150-01 | CAP, HOLE (46C36/53S35) | |
| 14 | 4-041-164-11 | SCREW (4X20), TAPPING | |
| 15 | 4-057-597-01 | GRILLE, SPEAKER (48S35/53S35) | |
| 16 | 4-057-603-01 | BUTTON, MULTI | |
| 17 | 4-057-604-01 | GUIDE, LED / IR | |
| 18 | * A-1372-304-A | HA BOARD, COMPLETE (46C36) | |
| | * A-1372-288-A | HA BOARD, COMPLETE (48S35/53S35) | |
| 19 | 1-505-378-11 | SPEAKER (10CM) | |
| 20 | 4-048-175-01 | FOOT, PLASTIC | |
| 21 | 4-040-755-01 | CASTER (DIA. 30) | |
| 22 | * 4-057-844-01 | BOARD (53), REAR (53S35) | |
| | * 4-058-556-01 | BOARD (48), REAR (48S35) | |
| | * 4-058-648-01 | BOARD (46), REAR (46C36) | |
| 23 | X-4034-456-1 | PANEL ASSY, CONTROL (46C36) | 24 |
| 24 | 4-057-605-11 | DOOR, CONTROL (46C36) | |
| 25 | 4-843-806-00 | STRIKE (46C36) | |
| 26 | X-4034-457-1 | GRILLE ASSY, SPEAKER (46C36) | |
| 27 | 4-838-438-00 | LATCH (46C36) | |
| 28 | 4-057-608-01 | SKIRT, FRONT (46C36) | |
| 29 | 4-058-745-01 | VELCRO (46C36) | |

## 7-2. COVER (KP-61S35)

● : 7-685-648-79 +BVTP 3X12




| REF. NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| 51 | X-4032-762-1 | FRAME ASSY, SCREEN | |
| 52 | * 4-040-122-01 | HOLDER (S), SCREEN | |
| 53 | * 4-040-120-01 | HOLDER (L), SCREEN | |
| 54 | 4-040-124-11 | PLATE (L), DIFFUSION | |
| 55 | 4-040-123-11 | PLATE (F), DIFFUSION | |
| 56 | 4-041-164-11 | SCREW (4X20), TAPPING | |
| 57 | 4-058-643-01 | MIRROR, REFLECTION | |
| 58 | * 4-049-098-01 | CUSHION | |
| 59 | * 4-058-642-01 | BOARD, MIRROR | |
| 60 | * 4-058-641-01 | COVER, TOP REAR | |

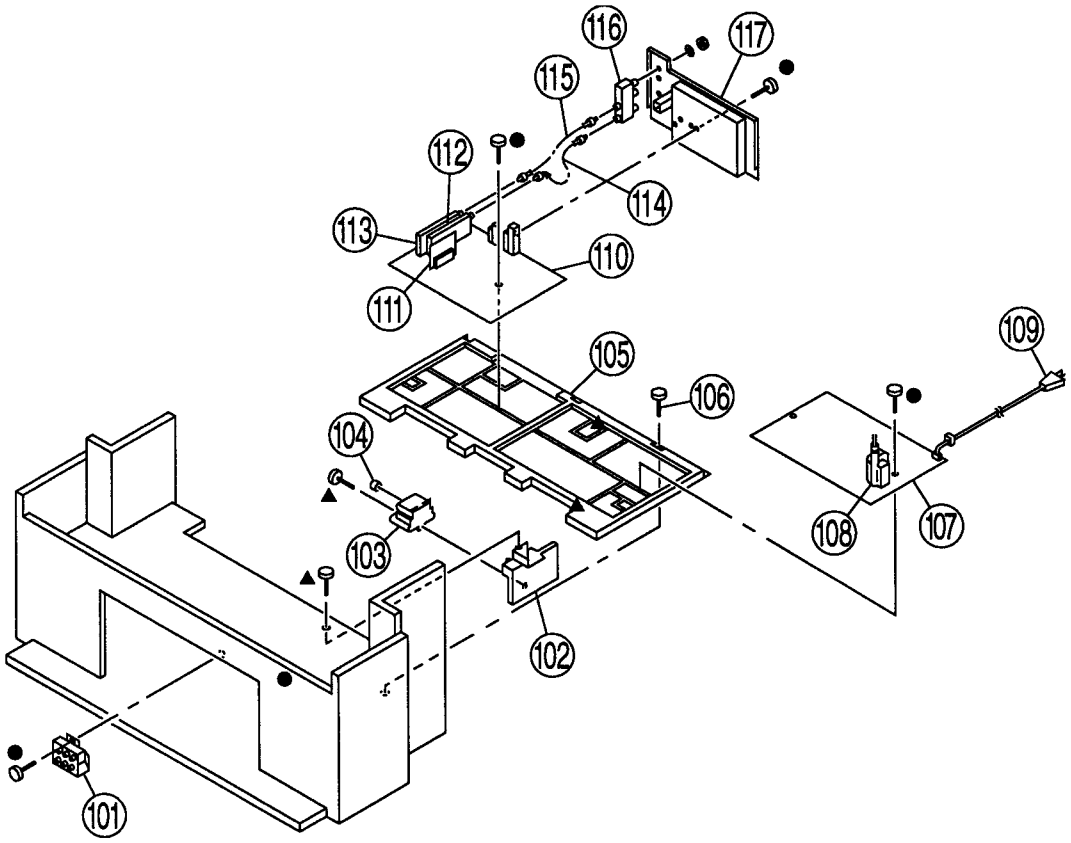
| REF. NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| 61 | 4-057-602-01 | GRILLE (61), SPEAKER | |
| 62 | 4-057-603-01 | BUTTON, MULTI | |
| 63 | 4-057-604-01 | GUIDE, LED / IR | |
| 64 | * A-1372-288-A | HA BOARD, COMPLETE | |
| 65 | 1-505-378-11 | SPEAKER (10CM) | |
| 66 | 4-838-438-00 | LATCH | |
| 67 | 4-030-850-01 | SOCKET, CASTER | |
| 68 | 4-040-508-02 | CASTER | |
| 69 | * 4-058-640-01 | BOARD, REAR | |

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

## 7-3. CHASSIS

● : 7-685-648-79 +BVTP 3X12
▲ : 7-685-661-14 +BVTP 4X12



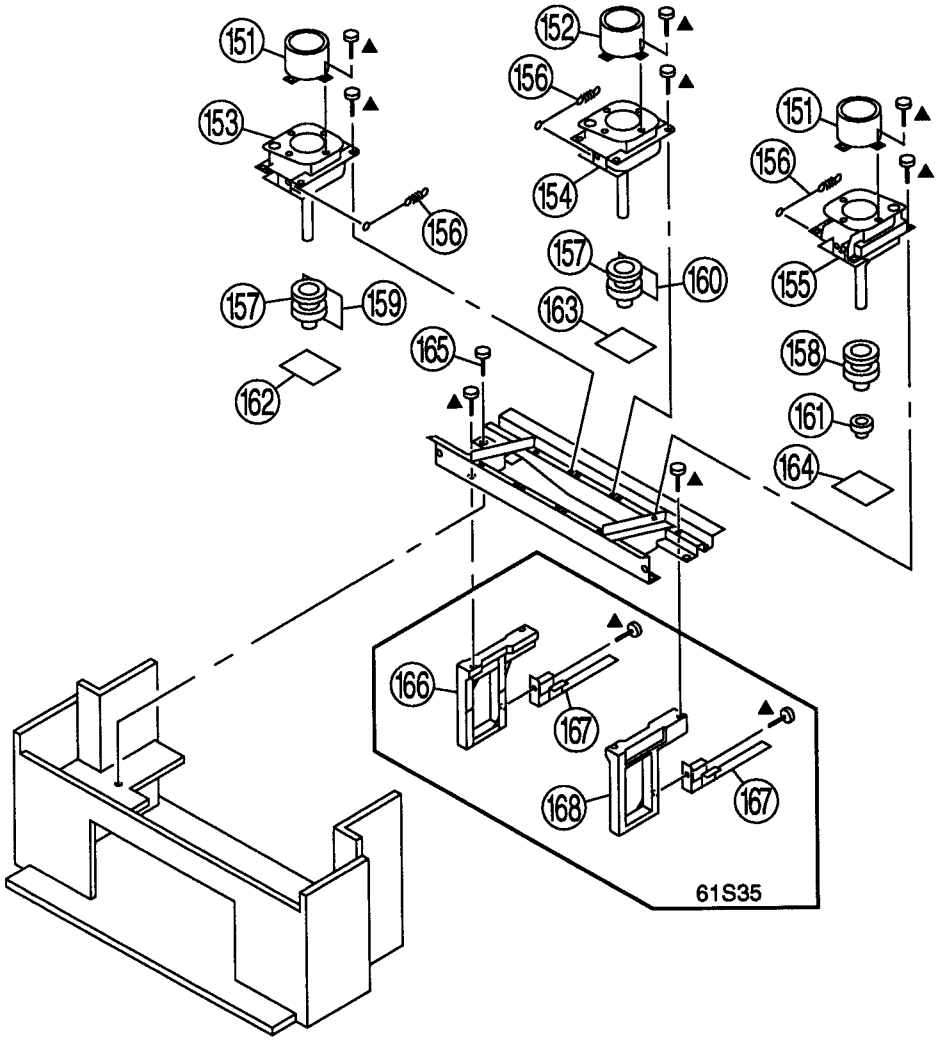

| REF. NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| 101 | ⚠1-223-925-12 | RESISTOR ASSY (HIGH-VOLTAGE) | |
| 102 | * 4-057-596-01 | BRACKET, HV | |
| 103 | ⚠8-598-955-20 | BLOCK ASSY, HIGH-VOLTAGE | |
| 104 | 4-373-137-01 | CAP (Z), RUBBER | |
| 105 | * 4-057-594-01 | BRACKET, MAIN | |
| 106 | 4-052-894-01 | SCREW (4X20), HEAD TAPPING | |
| 107 | * A-1316-295-A | G BOARD, COMPLETE (46C36/53S35) | |
| | * A-1316-304-A | G BOARD, COMPLETE (48S35/61S35) | |
| 108 | ⚠1-453-238-11 | TRANSFORMER ASSY, FLYBACK | (NX-4007//X4A4) |
| 109 | ⚠1-769-837-11 | CORD, POWER(WITH NOISE FILTER) | (7.0A/125V) |
| 110 | * A-1297-946-A | A BOARD, COMPLETE (except 46C36) | 111 |
| | * A-1298-009-A | A BOARD, COMPLETE (46C36 only) | 111 |
| 111 | * A-1195-103-A | P BOARD, COMPLETE | |
| 112 | ⚠8-598-339-00 | TUNER BTF-LA402 | |
| 113 | ⚠8-598-340-00 | TUNER BTF-WA404 | |
| 114 | * 1-557-056-41 | CABLE, P-P | |
| 115 | 1-556-945-21 | CABLE, P-P | |
| 116 | 8-598-414-00 | ANTENNA SWITCH AS-2F | |
| 117 | 4-057-595-01 | TERMINAL BOARD (48S35/53S35/61S35) | |
| | 4-057-595-21 | TERMINAL BOARD (46C36) | |

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

## 7-4. PICTURE TUBE

▲ : 7-685-661-14 +BVTP 4X12




| REF. NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| 151 | 4-040-131-01 | LENS (LINNIT POINT 6) (61S35) | |
| | 4-056-258-01 | LENS (DELTA 78) (46C36/48S35/53S35) | |
| 152 | 4-040-131-21 | LENS (LINNIT POINT 6) (61S35) | |
| | 4-056-258-01 | LENS (DELTA 78) (46C36/48S35/53S35) | |
| 153 | ⚠8-733-496-05 | PICTURE TUBE 07MAC2(R) (LONG NECK) | (GA) (46C36) |
| | ⚠8-733-498-05 | PICTURE TUBE 07MAC3 (R) (LONG NECK) | (GA) (48S35/53S35) |
| | ⚠8-733-508-05 | PICTURE TUBE 07MAC4(R) (61S35) | |
| 154 | ⚠8-733-518-05 | PICTURE TUBE 07MAC2 (G) (GC LENS) | |
| 155 | ⚠8-733-495-05 | PICTURE TUBE 07MAC2(B) (LONG NECK) | (GA) (46C36) |
| | ⚠8-733-497-05 | PICTURE TUBE 07MAC3 (B) (LONG NECK) | (GA) (48S35/53S35) |

| REF. NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| 155 | ⚠8-733-507-05 | PICTURE TUBE 07MAC4(B) (61S35) | |
| 156 | 4-048-142-01 | SPRING, TENSION | |
| 157 | ⚠1-451-454-11 | DEFLECTION YOKE (R) (G) | |
| 158 | ⚠1-451-455-21 | DEFLECTION YOKE (B) | |
| 159 | * A-1390-682-A | ZR BOARD, COMPLETE | |
| 160 | * A-1390-683-A | ZG BOARD, COMPLETE | |
| 161 | 1-452-909-11 | MAGNET ASSY, 4 POLE | |
| 162 | * A-1331-667-A | CR BOARD, COMPLETE | |
| 163 | * A-1331-668-A | CG BOARD, COMPLETE | |
| 164 | * A-1331-669-A | CB BOARD, COMPLETE | |
| 165 | 4-052-894-01 | SCREW (4X20), HEAD TAPPING | |
| 166 | 4-057-612-01 | BOARD (L), SIDE (61S35) | |
| 167 | 4-058-638-01 | STAY, CHASSIS (61S35) | |
| 168 | 4-057-613-01 | BOARD (R), SIDE (61S35) | |

# SECTION 8
# ELECTRICAL PARTS LIST

P

NOTE:

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

- CAPACITORS
  PF : μμ F
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

| REF. NO. | PART NO. | DESCRIPTION | | | | REMARK |
|---|---|---|---|---|---|---|
| | * A-1195-103-A | P BOARD, COMPLETE ********** | | | | |
| | | <CAPACITOR> | | | | |
| C3301 | 1-163-017-00 | CERAMIC CHIP | 0.0047MF | 10% | 50V | |
| C3302 | 1-164-346-11 | CERAMIC CHIP | 1MF | | 16V | |
| C3303 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V | |
| C3304 | 1-126-960-11 | ELECT | 1MF | 20% | 50V | |
| C3305 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V | |
| C3306 | 1-126-967-11 | ELECT | 47MF | 20% | 16V | |
| C3307 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V | |
| C3308 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V | |
| C3309 | 1-163-017-00 | CERAMIC CHIP | 0.0047MF | 10% | 50V | |
| C3310 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V | |
| C3313 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V | |
| C3314 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V | |
| C3315 | 1-164-346-11 | CERAMIC CHIP | 1MF | | 16V | |
| C3319 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V | |
| C3320 | 1-126-960-11 | ELECT | 1MF | 20% | 50V | |
| C3321 | 1-163-239-11 | CERAMIC CHIP | 33PF | 5% | 50V | |
| C3322 | 1-163-239-11 | CERAMIC CHIP | 33PF | 5% | 50V | |
| C3323 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V | |
| C3324 | 1-126-967-11 | ELECT | 47MF | 20% | 16V | |
| C3325 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V | |
| C3326 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V | |
| C3327 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V | |
| C3328 | 1-126-967-11 | ELECT | 47MF | 20% | 16V | |
| C3329 | 1-126-967-11 | ELECT | 47MF | 20% | 16V | |
| C3330 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V | |
| C3331 | 1-126-967-11 | ELECT | 47MF | 20% | 16V | |
| C3332 | 1-104-664-11 | ELECT | 47MF | 20% | 25V | |
| C3333 | 1-164-695-11 | CERAMIC CHIP | 0.0022MF | 5% | 50V | |
| C3334 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V | |
| C3335 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V | |
| C3336 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V | |
| C3337 | 1-164-005-11 | CERAMIC CHIP | 0.47MF | | 25V | |
| C3338 | 1-163-141-00 | CERAMIC CHIP | 0.001MF | 5% | 50V | |
| C3340 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V | |
| C3346 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V | |
| C3347 | 1-126-960-11 | ELECT | 1MF | 20% | 50V | |
| C3348 | 1-126-967-11 | ELECT | 47MF | 20% | 16V | |
| C3349 | 1-163-121-00 | CERAMIC CHIP | 150PF | 5% | 50V | |
| C3350 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V | |
| C3351 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V | |
| | | <CONNECTOR> | | | | |
| CN3301 | * 1-764-816-11 | CONNECTOR, BOARD TO BOARD 20P | | | | |
| | | <IC> | | | | |
| IC3301 | 8-759-366-24 | IC TDA8315T/N3A-T | | | | |
| IC3302 | 8-759-231-53 | IC TA7805S | | | | |
| IC3303 | 8-759-361-12 | IC SDA9288X | | | | |

| REF. NO. | PART NO. | DESCRIPTION | | | | REMARK |
|---|---|---|---|---|---|---|
| | | <COIL> | | | | |
| L3301 | 1-408-413-00 | INDUCTOR 22UH | | | | |
| L3302 | 1-410-473-11 | INDUCTOR 18UH | | | | |
| L3303 | 1-408-418-00 | INDUCTOR 56UH | | | | |
| | | <TRANSISTOR> | | | | |
| Q3301 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | | | | |
| Q3305 | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R | | | | |
| Q3306 | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R | | | | |
| Q3307 | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R | | | | |
| Q3308 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | | | | |
| Q3310 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | | | | |
| Q3312 | 8-729-026-49 | TRANSISTOR 2SA1037AK-T146-R | | | | |
| Q3313 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | | | | |
| | | <RESISTOR> | | | | |
| R3301 | 1-216-075-00 | METAL GLAZE | 12K | 5% | 1/10W | |
| R3302 | 1-216-043-91 | METAL GLAZE | 560 | 5% | 1/10W | |
| R3303 | 1-216-295-91 | CONDUCTOR, CHIP | | | | |
| R3304 | 1-216-043-91 | METAL GLAZE | 560 | 5% | 1/10W | |
| R3306 | 1-215-882-00 | METAL OXIDE | 22 | 5% | 2W | F |
| R3307 | 1-216-097-91 | METAL GLAZE | 100K | 5% | 1/10W | |
| R3308 | 1-216-051-00 | METAL GLAZE | 1.2K | 5% | 1/10W | |
| R3309 | 1-216-051-00 | METAL GLAZE | 1.2K | 5% | 1/10W | |
| R3310 | 1-216-689-11 | METAL GLAZE | 39K | 5% | 1/10W | |
| R3311 | 1-216-689-11 | METAL GLAZE | 39K | 5% | 1/10W | |
| R3312 | 1-216-037-00 | METAL GLAZE | 330 | 5% | 1/10W | |
| R3313 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R3314 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R3315 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R3316 | 1-216-053-00 | METAL GLAZE | 1.5K | 5% | 1/10W | |
| R3319 | 1-216-053-00 | METAL GLAZE | 1.5K | 5% | 1/10W | |
| R3321 | 1-216-053-00 | METAL GLAZE | 1.5K | 5% | 1/10W | |
| R3322 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R3323 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R3324 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R3326 | 1-216-037-00 | METAL GLAZE | 330 | 5% | 1/10W | |
| R3327 | 1-216-031-00 | METAL GLAZE | 180 | 5% | 1/10W | |
| R3328 | 1-216-037-00 | METAL GLAZE | 330 | 5% | 1/10W | |
| R3329 | 1-216-069-00 | METAL GLAZE | 6.8K | 5% | 1/10W | |
| R3330 | 1-216-035-00 | METAL GLAZE | 270 | 5% | 1/10W | |
| R3331 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R3332 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R3337 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R3338 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W | |
| R3339 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R3340 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R3341 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W | |
| R3342 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W | |
| R3343 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W | |
| R3346 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W | |
| R3351 | 1-216-295-91 | CONDUCTOR, CHIP | | | | |

# PA

| REF. NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R3352 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W |
| R3358 | 1-216-047-91 | METAL GLAZE | 820 | 5% | 1/10W |
| R3359 | 1-216-047-91 | METAL GLAZE | 820 | 5% | 1/10W |
| R3360 | 1-216-053-00 | METAL GLAZE | 1.5K | 5% | 1/10W |
| R3361 | 1-216-053-00 | METAL GLAZE | 1.5K | 5% | 1/10W |
| R3362 | 1-216-029-00 | METAL GLAZE | 150 | 5% | 1/10W |
| R3363 | 1-216-031-00 | METAL GLAZE | 180 | 5% | 1/10W |
| R3364 | 1-216-035-00 | METAL GLAZE | 270 | 5% | 1/10W |
| R3365 | 1-216-105-91 | METAL GLAZE | 220K | 5% | 1/10W |
| R3366 | 1-216-105-91 | METAL GLAZE | 220K | 5% | 1/10W |
| R3367 | 1-216-095-00 | METAL GLAZE | 82K | 5% | 1/10W |
| R3368 | 1-216-103-00 | METAL GLAZE | 180K | 5% | 1/10W |
| R3369 | 1-216-101-00 | METAL GLAZE | 150K | 5% | 1/10W |
| R3370 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W |
| R3371 | 1-216-095-00 | METAL GLAZE | 82K | 5% | 1/10W |
| R3372 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W |
| R3373 | 1-216-035-00 | METAL GLAZE | 270 | 5% | 1/10W |
| | | <CRYSTAL> | | | |
| X3301 | 1-567-505-11 | OSCILLATOR, CRYSTAL | | | |
| X3302 | 1-760-095-21 | VIBRATOR, CRYSTAL | | | |

**********

* A-1297-946-A A BOARD, COMPLETE (except KP-46C36)
**********

* A-1298-009-A A BOARD, COMPLETE (KP-46C36 only)
**********

4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

| REF. NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C001 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C002 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C003 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C004 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C005 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C017 | 1-163-809-11 | CERAMIC CHIP | 0.047MF | 10% | 25V |
| C018 | 1-163-259-91 | CERAMIC CHIP | 220PF | 5% | 50V |
| C019 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C021 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C024 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C025 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C026 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C027 | 1-126-935-11 | ELECT | 470MF | 20% | 16V |
| C028 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C032 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C033 | 1-163-259-91 | CERAMIC CHIP | 220PF | 5% | 50V |
| C034 | 1-163-809-11 | CERAMIC CHIP | 0.047MF | 10% | 25V |
| C035 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C036 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C037 | 1-163-237-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C038 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C045 | 1-164-182-11 | CERAMIC CHIP | 0.0033MF | 10% | 50V |
| C046 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C047 | 1-163-010-11 | CERAMIC CHIP | 0.0012MF | 10% | 50V |
| C048 | 1-164-005-11 | CERAMIC CHIP | 0.47MF | | 25V |
| C054 | 1-163-033-91 | CERAMIC CHIP | 0.022MF | | 50V |
| C057 | 1-163-259-91 | CERAMIC CHIP | 220PF | 5% | 50V |
| C060 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C092 | 1-163-259-91 | CERAMIC CHIP | 220PF | 5% | 50V |
| C107 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C108 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C109 | 1-126-935-11 | ELECT | 470MF | 20% | 16V |
| C110 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C111 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C119 | 1-163-227-11 | CERAMIC CHIP | 10PF | 0.5PF | 50V |
| C120 | 1-163-227-11 | CERAMIC CHIP | 10PF | 0.5PF | 50V |
| C121 | 1-163-227-11 | CERAMIC CHIP | 10PF | 0.5PF | 50V |
| C124 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C201 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C203 | 1-126-935-11 | ELECT | 470MF | 20% | 16V |
| C204 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C206 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C207 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C208 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C209 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C210 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C211 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C212 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C213 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C216 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C218 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C219 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C220 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C221 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C223 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C224 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C226 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C227 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C228 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C229 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C230 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C231 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C232 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C302 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C303 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C304 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C305 | 1-163-231-11 | CERAMIC CHIP | 15PF | 5% | 50V |
| C308 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C309 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C310 | 1-163-133-00 | CERAMIC CHIP | 470PF | 5% | 50V |
| C311 | 1-115-419-11 | CERAMIC CHIP | 3300PF | 5% | 25V |
| C312 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C313 | 1-137-399-11 | FILM | 0.1MF | 5% | 50V |
| C314 | 1-137-399-11 | FILM | 0.1MF | 5% | 50V |
| C315 | 1-137-399-11 | FILM | 0.1MF | 5% | 50V |
| C316 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C317 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C318 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C319 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C320 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C321 | 1-126-963-11 | ELECT | 4.7MF | 20% | 50V |
| C322 | 1-130-495-00 | MYLAR | 0.1MF | 5% | 50V |
| C323 | 1-137-581-11 | FILM | 0.1MF | 5% | 100V |
| C324 | 1-164-182-11 | CERAMIC CHIP | 0.0033MF | 10% | 50V |
| C325 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C326 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C327 | 1-163-141-00 | CERAMIC CHIP | 0.001MF | 5% | 50V |
| C329 | 1-163-017-00 | CERAMIC CHIP | 0.0047MF | 10% | 50V |
| C330 | 1-163-263-11 | CERAMIC CHIP | 330PF | 5% | 50V |
| C331 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C332 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C333 | 1-164-232-11 | CERAMIC CHIP | 0.01MF | 10% | 50V |
| C334 | 1-163-275-11 | CERAMIC CHIP | 0.001MF | 5% | 50V |
| C335 | 1-126-935-11 | ELECT | 470MF | 20% | 16V |
| C337 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C338 | 1-126-961-11 | ELECT | 2.2MF | 20% | 50V |
| C339 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C342 | 1-137-399-11 | FILM | 0.1MF | 5% | 50V |
| C344 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C348 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C349 | 1-163-245-11 | CERAMIC CHIP | 56PF | 5% | 50V |
| C351 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |

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| REF. NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C401 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C402 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C403 | 1-137-367-11 | FILM | 0.0033MF | 5% | 50V |
| C404 | 1-137-367-11 | FILM | 0.0033MF | 5% | 50V |
| C405 | 1-137-399-11 | FILM | 0.1MF | 5% | 50V |
| C406 | 1-137-399-11 | FILM | 0.1MF | 5% | 50V |
| C407 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C408 | 1-137-367-11 | FILM | 0.0033MF | 5% | 50V |
| C409 | 1-137-367-11 | FILM | 0.0033MF | 5% | 50V |
| C410 | 1-137-399-11 | FILM | 0.1MF | 5% | 50V |
| C411 | 1-137-399-11 | FILM | 0.1MF | 5% | 50V |
| C412 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C413 | 1-128-551-11 | ELECT | 22MF | 20% | 25V |
| C414 | 1-163-038-91 | CERAMIC CHIP | 0.1MF | | 25V |
| C415 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C416 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C417 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C418 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C419 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C420 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C422 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C424 | 1-126-961-11 | ELECT | 2.2MF | 20% | 50V |
| C425 | 1-126-935-11 | ELECT | 470MF | 20% | 16V |
| C426 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C427 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C428 | 1-126-969-11 | ELECT | 220MF | 20% | 50V |
| C429 | 1-126-967-11 | ELECT | 47MF | 20% | 50V |
| C430 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C431 | 1-126-969-11 | ELECT | 220MF | 20% | 50V |
| C432 | 1-136-173-00 | FILM | 0.47MF | 5% | 50V |
| C433 | 1-137-399-11 | FILM | 0.1MF | 5% | 50V |
| C434 | 1-128-550-11 | ELECT | 2200MF | 20% | 50V |
| C435 | 1-137-399-11 | FILM | 0.1MF | 5% | 50V |
| C436 | 1-126-943-11 | ELECT | 2200MF | 20% | 25V |
| C437 | 1-126-943-11 | ELECT | 2200MF | 20% | 25V |
| C440 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C441 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1101 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1102 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1103 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C1104 | 1-164-161-11 | CERAMIC CHIP | 0.0022MF | 10% | 50V |
| C1105 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1106 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C1107 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C1108 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1109 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C1110 | 1-164-161-11 | CERAMIC CHIP | 0.0022MF | 10% | 50V |
| C1111 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C1112 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1113 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1114 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1115 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1116 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1117 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1118 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1119 | 1-126-968-11 | ELECT | 100MF | 20% | 50V |
| C1120 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C1501 | 1-163-009-11 | CERAMIC CHIP | 0.001MF | 10% | 50V |
| C1502 | 1-107-504-11 | CERAMIC | 10PF | 0.5PF | 500V |
| C1503 | 1-136-177-00 | FILM | 1MF | 5% | 50V |
| C1506 | 1-126-969-11 | ELECT | 220MF | 20% | 50V |
| C1507 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C1508 | 1-137-378-11 | FILM | 0.22MF | 5% | 50V |
| C1509 | 1-163-251-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C1510 | 1-126-942-61 | ELECT | 1000MF | 20% | 25V |
| C1511 | 1-126-942-61 | ELECT | 1000MF | 20% | 25V |
| C1513 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1514 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |

| REF. NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C1517 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1518 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C1519 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C1520 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1521 | 1-164-161-11 | CERAMIC CHIP | 0.0022MF | 10% | 50V |
| C1522 | 1-164-004-11 | CERAMIC CHIP | 0.1MF | 10% | 25V |
| C1523 | 1-163-005-11 | CERAMIC CHIP | 470PF | 10% | 50V |
| C1524 | 1-137-150-11 | MYLAR | 0.01MF | 10% | 100V |
| C1601 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C1602 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C1603 | 1-126-916-11 | ELECT | 1000MF | 20% | 6.3V |
| C1604 | 1-126-934-11 | ELECT | 220MF | 20% | 16V |
| C1605 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1606 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1607 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1608 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1609 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |
| C1610 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C1611 | 1-163-031-11 | CERAMIC CHIP | 0.01MF | | 50V |

<FILTER BLOCK>

| | | |
|---|---|---|
| CM301 | 1-466-162-81 | FILTER BLOCK, COM (CFB-4) |

<CONNECTOR>

| | | |
|---|---|---|
| CN001 | *1-564-507-11 | PLUG, CONNECTOR 4P |
| CN002 | *1-564-511-11 | PLUG, CONNECTOR 8P |
| CN003 | *1-774-183-11 | CONNECTOR, BOARD TOBOARD10P |
| CN004 | 1-573-979-21 | CONNECTOR, BOARD TO BOARD 11P |
| CN301 | *1-774-183-11 | CONNECTOR, BOARD TOBOARD10P |
| CN302 | *1-564-508-11 | PLUG, CONNECTOR 5P |
| CN303 | *1-564-512-11 | PLUG, CONNECTOR 9P |
| CN305 | 1-573-298-21 | CONNECTOR, BOARD TO BOARD 20P |
| CN401 | *1-564-507-11 | PLUG, CONNECTOR 4P |
| CN402 | *1-564-506-11 | PLUG, CONNECTOR 3P (46C36 only) |
| CN1101 | *1-564-514-11 | PLUG, CONNECTOR 11P (46C36 only) |
| CN1501 | *1-564-506-11 | PLUG, CONNECTOR 3P |
| CN1601 | *1-774-183-11 | CONNECTOR, BOARD TOBOARD10P |
| CN1602 | *1-774-183-11 | CONNECTOR, BOARD TOBOARD10P |

<DIODE>

| | | |
|---|---|---|
| D001 | 8-719-991-33 | DIODE 1SS133T-77 |
| D002 | 8-719-991-33 | DIODE 1SS133T-77 |
| D003 | 8-719-991-33 | DIODE 1SS133T-77 |
| D004 | 8-719-991-33 | DIODE 1SS133T-77 |
| D007 | 8-719-109-89 | DIODE RD5.6ESB2 |
| D010 | 8-719-109-89 | DIODE RD5.6ESB2 |
| D202 | 8-719-110-17 | DIODE RD10ESB2 |
| D203 | 8-719-109-89 | DIODE RD5.6ESB2 |
| D206 | 8-719-977-28 | DIODE DTZ10B |
| D207 | 8-719-977-28 | DIODE DTZ10B |
| D208 | 8-719-977-28 | DIODE DTZ10B |
| D209 | 8-719-977-28 | DIODE DTZ10B |
| D210 | 8-719-977-28 | DIODE DTZ10B |
| D211 | 8-719-977-28 | DIODE DTZ10B |
| D212 | 8-719-977-28 | DIODE DTZ10B |
| D213 | 8-719-977-28 | DIODE DTZ10B |
| D214 | 8-719-110-17 | DIODE RD10ESB2 |
| D215 | 8-719-110-17 | DIODE RD10ESB2 |
| D216 | 8-719-110-17 | DIODE RD10ESB2 |
| D217 | 8-719-110-17 | DIODE RD10ESB2 |
| D218 | 8-719-110-17 | DIODE RD10ESB2 |
| D219 | 8-719-110-17 | DIODE RD10ESB2 |
| D220 | 8-719-110-17 | DIODE RD10ESB2 |
| D221 | 8-719-110-17 | DIODE RD10ESB2 |
| D222 | 8-719-110-17 | DIODE RD10ESB2 |
| D225 | 8-719-110-17 | DIODE RD10ESB2 |

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Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

| REF. NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| D226 | 8-719-110-17 | DIODE RD10ESB2 | |
| D232 | 8-719-982-26 | DIODE MTZJ-33B | |
| D236 | 8-719-110-17 | DIODE RD10ESB2 | |
| D237 | 8-719-110-17 | DIODE RD10ESB2 | |
| D238 | 8-719-110-17 | DIODE RD10ESB2 | |
| D239 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D240 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D241 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D303 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D305 | 8-719-110-17 | DIODE RD10ESB2 | |
| D401 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D402 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D403 | 8-719-982-26 | DIODE MTZJ-33B | |
| D405 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D406 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D408 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D410 | 8-719-982-26 | DIODE MTZJ-33B | |
| D1101 | 8-719-982-26 | DIODE MTZJ-33B | |
| D1102 | 8-719-977-28 | DIODE DTZ10B (46C36 only) | |
| D1103 | 8-719-977-28 | DIODE DTZ10B (46C36 only) | |
| D1104 | 8-719-977-28 | DIODE DTZ10B (46C36 only) | |
| D1105 | 8-719-977-28 | DIODE DTZ10B (46C36 only) | |
| D1106 | 8-719-977-28 | DIODE DTZ10B (46C36 only) | |
| D1107 | 8-719-977-28 | DIODE DTZ10B (46C36 only) | |
| D1501 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D1502 | 8-719-908-03 | DIODE GP08D | |
| | | <FERRITE BEAD> | |
| FB1102 | 1-414-135-11 | INDUCTOR CHIP 0UH | |
| | | <IC> | |
| IC001 | 8-752-874-82 | IC CXP85856-008S | |
| IC002 | 8-752-861-57 | IC CXP85112B-613S | |
| IC003 | 8-759-352-91 | IC PST9143NL | |
| IC004 | 8-759-352-91 | IC PST9143NL | |
| IC007 | 8-759-518-23 | IC X24C04S8 | |
| IC201 | 8-759-366-78 | IC MM1313AD | |
| IC301 | ⚠8-752-076-76 | IC CXA2025AS | |
| IC401 | 8-759-369-39 | IC BH3856FS-E2 | |
| IC402 | 8-759-100-96 | IC uPC4558G2 | |
| IC403 | 8-759-089-13 | IC TDA7262 | |
| IC1501 | 8-759-192-71 | IC STV9379 | |
| IC1502 | 8-759-251-31 | IC CA0007AM | |
| IC1601 | 8-759-198-03 | IC PQ09RF21 | |
| IC1602 | 8-759-231-53 | IC TA7805S | |
| | | <JACK> | |
| J203 | 1-507-667-00 | JACK, MIC | |
| J205 | 1-774-750-11 | JACK BLOCK, PIN | |
| J206 | 1-774-749-11 | JACK BLOCK, PIN | |
| J208 | 1-774-749-11 | JACK BLOCK, PIN | |
| J209 | 1-774-751-11 | TERMINAL BLOCK, S | |
| | | <COIL> | |
| L002 | 1-410-482-31 | INDUCTOR 100UH | |
| L003 | 1-410-482-31 | INDUCTOR 100UH | |
| L004 | 1-216-295-91 | CONDUCTOR, CHIP | |
| L005 | 1-216-295-91 | CONDUCTOR, CHIP | |
| L006 | 1-410-470-11 | INDUCTOR 10UH | |
| L007 | 1-410-482-31 | INDUCTOR 100UH | |
| L201 | 1-410-478-11 | INDUCTOR 47UH | |
| L302 | 1-410-482-31 | INDUCTOR 100UH | |
| L303 | 1-410-470-11 | INDUCTOR 10UH | |
| L1101 | 1-410-478-11 | INDUCTOR 47UH | |
| L1103 | 1-410-478-11 | INDUCTOR 47UH | |
| L1104 | 1-410-478-11 | INDUCTOR 47UH | |
| L1105 | 1-410-470-11 | INDUCTOR 10UH | |
| L1106 | 1-410-478-11 | INDUCTOR 47UH | |
| L1501 | 1-412-524-11 | INDUCTOR 8.2UH | |
| L1502 | 1-412-533-21 | INDUCTOR 47UH | |
| L1503 | 1-412-533-21 | INDUCTOR 47UH | |
| | | <NEON LAMP> | |
| NL1501 | 1-519-108-99 | LAMP, NEON | |
| | | <IC LINK> | |
| PS401 | 1-532-984-11 | LINK, IC (2A/90V) | |
| | | <TRANSISTOR> | |
| Q001 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q002 | 8-729-027-38 | TRANSISTOR DTA144EKA-T146 | |
| Q003 | 8-729-027-38 | TRANSISTOR DTA144EKA-T146 | |
| Q004 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q005 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q006 | 8-729-027-38 | TRANSISTOR DTA144EKA-T146 | |
| Q007 | 8-729-027-59 | TRANSISTOR DTC144EKA-T146 | |
| Q008 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q009 | 8-729-027-38 | TRANSISTOR DTA144EKA-T146 | |
| Q013 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q015 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q016 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q017 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q201 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q206 | 8-729-027-56 | TRANSISTOR DTC143TKA-T146 | |
| Q207 | 8-729-027-59 | TRANSISTOR DTC144EKA-T146 | |
| Q209 | 8-729-027-56 | TRANSISTOR DTC143TKA-T146 | |
| Q213 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q214 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q216 | 8-729-027-56 | TRANSISTOR DTC143TKA-T146 | |
| Q217 | 8-729-027-56 | TRANSISTOR DTC143TKA-T146 | |
| Q218 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q219 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q220 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q226 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q301 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q302 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q303 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q304 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q305 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q306 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q307 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q308 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q311 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q312 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q313 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q314 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q402 | 8-729-027-59 | TRANSISTOR DTC144EKA-T146 | |
| Q403 | 8-729-027-38 | TRANSISTOR DTA144EKA-T146 | |
| Q405 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q406 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q408 | 8-729-027-56 | TRANSISTOR DTC143TKA-T146 | |
| Q409 | 8-729-027-56 | TRANSISTOR DTC143TKA-T146 | |
| Q410 | 8-729-027-56 | TRANSISTOR DTC143TKA-T146 | |
| Q411 | 8-729-027-56 | TRANSISTOR DTC143TKA-T146 | |
| Q1101 | 8-729-027-59 | TRANSISTOR DTC144EKA-T146 | |
| Q1501 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q2105 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |
| Q2106 | 8-729-422-27 | TRANSISTOR 2SD601A-QRS-TX | |

A

| REF. NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| | | <RESISTOR> | | | |
| R003 | 1-216-295-91 | CONDUCTOR, CHIP | | | |
| R004 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R005 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R006 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R007 | 1-216-081-00 | METAL GLAZE | 22K | 5% | 1/10W |
| R008 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R009 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R010 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R011 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R012 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R013 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R014 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R015 | 1-216-025-91 | METAL GLAZE | 100 | 5% | 1/10W |
| R016 | 1-216-025-91 | METAL GLAZE | 100 | 5% | 1/10W |
| R017 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R018 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R019 | 1-216-097-91 | METAL GLAZE | 100K | 5% | 1/10W |
| R020 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W |
| R021 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W |
| R023 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R024 | 1-216-121-91 | METAL GLAZE | 1M | 5% | 1/10W |
| R025 | 1-216-097-91 | METAL GLAZE | 100K | 5% | 1/10W |
| R026 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R027 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R028 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R030 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R031 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R032 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R033 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R034 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R035 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R036 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R037 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R038 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W |
| R039 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W |
| R040 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R041 | 1-216-025-91 | METAL GLAZE | 100 | 5% | 1/10W |
| R042 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W |
| R043 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R044 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R045 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R046 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W |
| R047 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W |
| R048 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R049 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W |
| R050 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R051 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R052 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R053 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W |
| R054 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R055 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R056 | 1-216-121-91 | METAL GLAZE | 1M | 5% | 1/10W |
| R057 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W |
| R058 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W |
| R059 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R060 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R061 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W |
| R063 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R064 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W |
| R065 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W |
| R066 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W |
| R067 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R068 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R070 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R071 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R072 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R073 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R074 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W |
| R075 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W |
| R076 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R077 | 1-216-121-91 | METAL GLAZE | 1M | 5% | 1/10W |
| R078 | 1-216-097-91 | METAL GLAZE | 100K | 5% | 1/10W |
| R080 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R081 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R084 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R085 | 1-216-097-91 | METAL GLAZE | 100K | 5% | 1/10W |
| R086 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R087 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W |
| R088 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R090 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R091 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W |
| R092 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W |
| R099 | 1-216-037-00 | METAL GLAZE | 330 | 5% | 1/10W |
| R111 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R112 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R113 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R115 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R117 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R118 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R119 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R120 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R121 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R122 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R123 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R124 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R125 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R127 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R128 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R131 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R132 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R133 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W |
| R147 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W |
| R148 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W |
| R149 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W |
| R154 | 1-216-025-91 | METAL GLAZE | 100 | 5% | 1/10W |
| R155 | 1-216-025-91 | METAL GLAZE | 100 | 5% | 1/10W |
| R156 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W |
| R157 | 1-216-017-91 | METAL GLAZE | 47 | 5% | 1/10W |
| R158 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W |
| R159 | 1-216-017-91 | METAL GLAZE | 47 | 5% | 1/10W |
| R160 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W |
| R161 | 1-216-017-91 | METAL GLAZE | 47 | 5% | 1/10W |
| R163 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R164 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R165 | 1-216-033-00 | METAL GLAZE | 220 | 5% | 1/10W |
| R171 | 1-216-035-00 | METAL GLAZE | 270 | 5% | 1/10W |
| R172 | 1-216-035-00 | METAL GLAZE | 270 | 5% | 1/10W |
| R173 | 1-216-035-00 | METAL GLAZE | 270 | 5% | 1/10W |
| R204 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W F |
| R206 | 1-216-022-00 | METAL GLAZE | 75 | 5% | 1/10W |
| R213 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W |
| R214 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W |
| R215 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W |
| R216 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W |
| R217 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W |
| R218 | 1-216-022-00 | METAL GLAZE | 75 | 5% | 1/10W |
| R219 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W |
| R220 | 1-216-113-00 | METAL GLAZE | 470K | 5% | 1/10W |
| R221 | 1-216-022-00 | METAL GLAZE | 75 | 5% | 1/10W |
| R222 | 1-216-022-00 | METAL GLAZE | 75 | 5% | 1/10W |
| R223 | 1-216-022-00 | METAL GLAZE | 75 | 5% | 1/10W |
| R224 | 1-216-017-91 | METAL GLAZE | 47 | 5% | 1/10W |
| R225 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W |
| R227 | 1-216-019-00 | METAL GLAZE | 56 | 5% | 1/10W |
| R229 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W |

# A

| REF. NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R230 | 1-216-113-00 | METAL GLAZE 470K | 5% | 1/10W | |
| R231 | 1-216-113-00 | METAL GLAZE 470K | 5% | 1/10W | |
| R235 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | |
| R236 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | |
| R241 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | |
| R245 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | |
| R255 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R258 | 1-216-089-91 | METAL GLAZE 47K | 5% | 1/10W | |
| R260 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R261 | 1-216-065-00 | METAL GLAZE 4.7K | 5% | 1/10W | |
| R262 | 1-216-095-00 | METAL GLAZE 82K | 5% | 1/10W | (46C36 only) |
| R263 | 1-216-095-00 | METAL GLAZE 82K | 5% | 1/10W | |
| R264 | 1-216-089-91 | METAL GLAZE 47K | 5% | 1/10W | |
| R265 | 1-216-097-91 | METAL GLAZE 100K | 5% | 1/10W | |
| R266 | 1-216-057-00 | METAL GLAZE 2.2K | 5% | 1/10W | |
| R268 | 1-216-105-91 | METAL GLAZE 220K | 5% | 1/10W | |
| R274 | 1-216-019-00 | METAL GLAZE 56 | 5% | 1/10W | |
| R275 | 1-216-033-00 | METAL GLAZE 220 | 5% | 1/10W | |
| R276 | 1-216-033-00 | METAL GLAZE 220 | 5% | 1/10W | |
| R277 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R278 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R279 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R280 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | (46C36 only) |
| R281 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | (46C36 only) |
| R282 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | (46C36 only) |
| R283 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | (46C36 only) |
| R284 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | (46C36 only) |
| R285 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | (46C36 only) |
| R286 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R287 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R288 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R289 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R290 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R291 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R294 | 1-216-043-91 | METAL GLAZE 560 | 5% | 1/10W | |
| R295 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R296 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R297 | 1-216-093-00 | METAL GLAZE 68K | 5% | 1/10W | |
| R299 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | |
| R301 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | |
| R302 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R303 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R304 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R305 | 1-216-033-00 | METAL GLAZE 220 | 5% | 1/10W | |
| R306 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | |
| R307 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R308 | 1-216-017-91 | METAL GLAZE 47 | 5% | 1/10W | |
| R309 | 1-216-017-91 | METAL GLAZE 47 | 5% | 1/10W | |
| R310 | 1-216-017-91 | METAL GLAZE 47 | 5% | 1/10W | |
| R314 | 1-216-033-00 | METAL GLAZE 220 | 5% | 1/10W | |
| R315 | 1-216-033-00 | METAL GLAZE 220 | 5% | 1/10W | |
| R319 | 1-216-033-00 | METAL GLAZE 220 | 5% | 1/10W | |
| R320 | 1-216-033-00 | METAL GLAZE 220 | 5% | 1/10W | |
| R322 | 1-216-077-00 | METAL GLAZE 15K | 5% | 1/10W | |
| R323 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R324 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R325 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R326 | 1-208-786-11 | METAL GLAZE 1.5K | 0.50% | 1/10W | |
| R327 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R328 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R330 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R331 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R332 | 1-216-035-00 | METAL GLAZE 270 | 5% | 1/10W | |
| R333 | 1-208-810-11 | METAL GLAZE 15K | 0.50% | 1/10W | |
| R334 | 1-216-043-91 | METAL GLAZE 560 | 5% | 1/10W | |
| R335 | 1-216-033-00 | METAL GLAZE 220 | 5% | 1/10W | |
| R337 | 1-216-033-00 | METAL GLAZE 220 | 5% | 1/10W | |
| R338 | 1-216-033-00 | METAL GLAZE 220 | 5% | 1/10W | |
| R339 | 1-216-033-00 | METAL GLAZE 220 | 5% | 1/10W | |
| R340 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R342 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R343 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R344 | 1-216-067-00 | METAL GLAZE 5.6K | 5% | 1/10W | |
| R345 | 1-216-109-00 | METAL GLAZE 330K | 5% | 1/10W | |
| R346 | 1-216-053-00 | METAL GLAZE 1.5K | 5% | 1/10W | |
| R347 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R348 | 1-216-133-00 | METAL GLAZE 3.3M | 5% | 1/10W | |
| R349 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R350 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R351 | 1-216-061-00 | METAL GLAZE 3.3K | 5% | 1/10W | |
| R352 | 1-216-059-00 | METAL GLAZE 2.7K | 5% | 1/10W | |
| R353 | 1-216-059-00 | METAL GLAZE 2.7K | 5% | 1/10W | |
| R354 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R355 | 1-216-089-91 | METAL GLAZE 47K | 5% | 1/10W | |
| R356 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R357 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R358 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R359 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R360 | 1-216-065-00 | METAL GLAZE 4.7K | 5% | 1/10W | |
| R361 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | |
| R362 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R363 | 1-216-077-00 | METAL GLAZE 15K | 5% | 1/10W | |
| R364 | 1-208-783-11 | METAL GLAZE 1.1K | 0.50% | 1/10W | |
| R365 | 1-216-081-00 | METAL GLAZE 22K | 5% | 1/10W | |
| R366 | 1-216-017-91 | METAL GLAZE 47 | 5% | 1/10W | |
| R367 | 1-216-081-00 | METAL GLAZE 22K | 5% | 1/10W | |
| R368 | 1-216-065-00 | METAL GLAZE 4.7K | 5% | 1/10W | |
| R369 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R370 | 1-216-083-00 | METAL GLAZE 27K | 5% | 1/10W | |
| R371 | 1-216-077-00 | METAL GLAZE 15K | 5% | 1/10W | |
| R372 | 1-216-065-00 | METAL GLAZE 4.7K | 5% | 1/10W | |
| R373 | 1-216-079-00 | METAL GLAZE 18K | 5% | 1/10W | |
| R374 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R375 | 1-216-101-00 | METAL GLAZE 150K | 5% | 1/10W | |
| R376 | 1-216-097-91 | METAL GLAZE 100K | 5% | 1/10W | |
| R377 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R378 | 1-216-057-00 | METAL GLAZE 2.2K | 5% | 1/10W | |
| R379 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R380 | 1-216-089-91 | METAL GLAZE 47K | 5% | 1/10W | |
| R381 | 1-216-097-91 | METAL GLAZE 100K | 5% | 1/10W | |
| R384 | 1-249-377-11 | CARBON 0.47 | 5% | 1/4W | F |
| R401 | 1-249-377-11 | CARBON 0.47 | 5% | 1/4W | F |
| R406 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R407 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R408 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R412 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R413 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R414 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R415 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R416 | 1-216-073-00 | METAL GLAZE 10K | 5% | 1/10W | |
| R418 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R423 | 1-216-025-91 | METAL GLAZE 100 | 5% | 1/10W | |
| R424 | 1-216-089-91 | METAL GLAZE 47K | 5% | 1/10W | |
| R425 | 1-216-041-00 | METAL GLAZE 470 | 5% | 1/10W | |
| R427 | 1-216-053-00 | METAL GLAZE 1.5K | 5% | 1/10W | |
| R428 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R429 | 1-216-049-91 | METAL GLAZE 1K | 5% | 1/10W | |
| R430 | 1-216-053-00 | METAL GLAZE 1.5K | 5% | 1/10W | |
| R432 | 1-216-081-00 | METAL GLAZE 22K | 5% | 1/10W | |
| R433 | 1-216-011-00 | METAL GLAZE 27 | 5% | 1/10W | |
| R434 | 1-216-075-00 | METAL GLAZE 12K | 5% | 1/10W | |

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

• The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

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| REF. NO. | PART NO. | DESCRIPTION | | | | REMARK |
|---|---|---|---|---|---|---|
| R435 | 1-216-075-00 | METAL GLAZE | 12K | 5% | 1/10W | |
| R436 | 1-216-011-00 | METAL GLAZE | 27 | 5% | 1/10W | |
| R437 | 1-249-418-11 | CARBON | 1.2K | 5% | 1/4W | F |
| R438 | 1-249-418-11 | CARBON | 1.2K | 5% | 1/4W | F |
| R439 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W | F |
| R440 | 1-249-389-11 | CARBON | 4.7 | 5% | 1/4W | F |
| R441 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R442 | 1-216-025-91 | METAL GLAZE | 100 | 5% | 1/10W | |
| R443 | 1-216-295-91 | CONDUCTOR, CHIP | | | | |
| R444 | 1-216-295-91 | CONDUCTOR, CHIP | | | | |
| R1101 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R1102 | 1-216-083-00 | METAL GLAZE | 27K | 5% | 1/10W | |
| R1103 | 1-216-689-11 | METAL GLAZE | 39K | 5% | 1/10W | |
| R1104 | 1-216-049-91 | METAL GLAZE | 1K | 5% | 1/10W | |
| R1105 | 1-216-689-11 | METAL GLAZE | 39K | 5% | 1/10W | |
| R1106 | 1-216-083-00 | METAL GLAZE | 27K | 5% | 1/10W | |
| R1107 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R1108 | 1-215-900-11 | METAL OXIDE | 22K | 5% | 2W | F |
| R1501 | 1-216-354-11 | METAL OXIDE | 2.7 | 5% | 1W | F |
| R1502 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R1504 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R1506 | 1-215-888-00 | METAL OXIDE | 220 | 5% | 2W | F |
| R1507 | 1-216-081-00 | METAL GLAZE | 22K | 5% | 1/10W | |
| R1508 | 1-249-383-11 | CARBON | 1.5 | 5% | 1/4W | F |
| R1509 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R1510 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R1511 | 1-216-057-00 | METAL GLAZE | 2.2K | 5% | 1/10W | |
| R1518 | 1-216-354-11 | METAL OXIDE | 2.7 | 5% | 1W | F |
| R1520 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R1522 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R1523 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R1524 | 1-216-097-91 | METAL GLAZE | 100K | 5% | 1/10W | |
| R1525 | 1-215-456-00 | METAL | 30K | 1% | 1/4W | |
| R1526 | 1-215-456-00 | METAL | 30K | 1% | 1/4W | |
| R1527 | 1-216-097-91 | METAL GLAZE | 100K | 5% | 1/10W | |
| R1528 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R1529 | 1-216-025-91 | METAL GLAZE | 100 | 5% | 1/10W | |
| R2106 | 1-216-025-91 | METAL GLAZE | 100 | 5% | 1/10W | |
| R2109 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R2110 | 1-216-073-00 | METAL GLAZE | 10K | 5% | 1/10W | |
| R2111 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R2112 | 1-216-065-00 | METAL GLAZE | 4.7K | 5% | 1/10W | |
| R2201 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R2202 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R2203 | 1-216-025-91 | METAL GLAZE | 100 | 5% | 1/10W | |
| R2204 | 1-216-045-00 | METAL GLAZE | 680 | 5% | 1/10W | |
| R2205 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R2208 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |
| R2209 | 1-216-041-00 | METAL GLAZE | 470 | 5% | 1/10W | |

<THERMISTOR>

| | | |
|---|---|---|
| TH1501 | 1-800-193-00 | THERMISTOR |

<TUNER>

| | | |
|---|---|---|
| TU1101 ⚠ | 8-598-340-00 | TUNER BTF-WA404 |
| TU1102 ⚠ | 8-598-339-00 | TUNER BTF-LA402 |

<CRYSTAL>

| | | |
|---|---|---|
| X001 | 1-577-358-21 | VIBRATOR, CERAMIC |
| X002 | 1-578-774-11 | VIBRATOR, CRYSTAL |
| X301 | 1-567-505-11 | OSCILLATOR, CRYSTAL |
| X304 | 1-577-611-11 | OSCILALTOR, CERAMIC |

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| REF. NO. | PART NO. | DESCRIPTION | | | | REMARK |
|---|---|---|---|---|---|---|
| | * A-1316-295-A | G BOARD, COMPLETE (KP-46C36/53S35) ********** | | | | |
| | * A-1316-304-A | G BOARD, COMPLETE (KP-48S35/61S35) ********** | | | | |
| | * 4-057-835-01 | PLATE, TRANSFORMER SHIELD | | | | |
| | 4-382-854-11 | SCREW (M3X10), P, SW (+) | | | | |
| | 7-682-952-09 | SCREW +PSW 3X16 | | | | |

<CAPACITOR>

| | | | | | | |
|---|---|---|---|---|---|---|
| C502 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V | |
| C504 | 1-102-116-00 | CERAMIC | 680PF | 10% | 50V | |
| C505 | 1-130-471-00 | MYLAR | 0.001MF | 5% | 50V | |
| C506 | 1-126-933-11 | ELECT | 100MF | 20% | 16V | |
| C507 | 1-126-965-11 | ELECT | 22MF | 20% | 50V | |
| C508 | 1-102-212-00 | CERAMIC | 820PF | 10% | 500V | |
| C509 | 1-106-383-00 | MYLAR | 0.047MF | 10% | 200V | |
| C510 | 1-102-002-00 | CERAMIC | 680PF | 10% | 500V | |
| C511 | 1-130-475-00 | MYLAR | 0.0022MF | 5% | 50V | |
| C512 | 1-130-471-00 | FILM | 0.001MF | 5% | 50V | |
| C513 | 1-126-965-11 | ELECT | 22MF | 20% | 50V | |
| ⊠C514 | ⚠ | CERAMIC | | | 2KV | |
| C515 | ⚠ 1-136-334-91 | FILM | 0.033MF | 5% | 630V | |
| C516 | ⚠ 1-136-084-11 | FILM | 0.0145MF | 3% | 2KV | |
| C518 | 1-130-495-00 | MYLAR | 0.1MF | 5% | 50V | |
| C519 | 1-106-359-00 | MYLAR | 0.0047MF | 10% | 100V | |
| C520 | 1-162-116-00 | CERAMIC | 680PF | 10% | 2KV | |
| C521 | 1-162-116-00 | CERAMIC | 680PF | 10% | 2KV | |
| C523 | 1-113-506-11 | FILM | 0.75MF | 5% | 200V | |
| C524 | 1-106-359-00 | MYLAR | 0.0047MF | 10% | 100V | |
| C526 | 1-102-228-00 | CERAMIC | 470PF | 10% | 500V | |
| C527 | 1-126-967-11 | ELECT | 47MF | 20% | 50V | |
| C528 | 1-107-649-11 | ELECT | 2.2MF | 20% | 250V | |
| C529 | 1-136-541-11 | FILM | 1.5MF | 5% | 200V | |
| C530 | 1-110-626-11 | ELECT | 330MF | 20% | 160V | |
| C531 | 1-126-971-11 | ELECT | 470MF | 20% | 50V | |
| C532 | 1-126-971-11 | ELECT | 470MF | 20% | 50V | |
| C533 | 1-128-562-11 | ELECT | 47MF | 20% | 100V | |
| C535 | 1-106-387-00 | MYLAR | 0.068MF | 10% | 200V | |
| C536 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V | |
| C537 | 1-126-968-11 | ELECT | 100MF | 20% | 50V | |
| C538 | 1-126-968-11 | ELECT | 100MF | 20% | 50V | |
| C539 | 1-162-114-00 | CERAMIC | 0.0047MF | | 2KV | |
| C540 | 1-130-487-00 | MYLAR | 0.022MF | 5% | 50V | |
| C541 | 1-130-489-00 | MYLAR | 0.033MF | 5% | 50V | |
| C542 | 1-126-969-11 | ELECT | 220MF | 20% | 50V | |
| C544 | 1-104-665-11 | ELECT | 100MF | 20% | 25V | |
| C545 | 1-104-665-11 | ELECT | 100MF | 20% | 25V | |
| C546 | 1-107-637-11 | ELECT | 22MF | 20% | 160V | |
| C548 | 1-102-244-00 | CERAMIC | 220PF | 10% | 500V | |
| C550 | 1-126-935-11 | ELECT | 470MF | 20% | 16V | |
| C551 | 1-126-935-11 | ELECT | 470MF | 20% | 16V | |
| C554 | 1-136-557-11 | FILM | 0.0033MF | 5% | 630V | |
| C555 | 1-126-960-11 | ELECT | 1MF | 20% | 50V | |
| C556 | 1-130-495-00 | MYLAR | 0.1MF | 5% | 50V | |
| C602 | ⚠ 1-113-890-51 | CERAMIC | 0.0022MF | 20% | 250V | |
| C603 | 1-102-228-00 | CERAMIC | 470PF | 10% | 500V | |
| C604 | ⚠ 1-136-311-51 | FILM | 0.47MF | 20% | 125V | |
| C605 | ⚠ 1-113-890-51 | CERAMIC | 0.0022MF | 20% | 250V | |
| C606 | ⚠ 1-136-311-51 | FILM | 0.47MF | 20% | 125V | |
| C607 | 1-125-692-11 | ELECT(BLOCK) | 820MF | 20% | 200V | |
| C608 | 1-125-692-11 | ELECT(BLOCK) | 820MF | 20% | 200V | |
| C612 | 1-164-646-11 | CERAMIC | 2200PF | 10% | 500V | |
| C615 | 1-136-173-00 | FILM | 0.47MF | 5% | 50V | |
| C616 | 1-136-173-00 | FILM | 0.47MF | 5% | 50V | |
| C617 | 1-136-169-00 | FILM | 0.22MF | 5% | 50V | |
| C618 | 1-136-169-00 | FILM | 0.22MF | 5% | 50V | |
| C621 | 1-129-719-00 | FILM | 0.027MF | 5% | 630V | |

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Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

| REF. NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C651 | 1-126-804-11 | ELECT | 100MF | 20% | 35V |
| C652 | 1-123-024-21 | ELECT | 33MF | | 160V |
| C653 | 1-104-652-11 | ELECT | 470MF | 20% | 10V |
| C654 | 1-104-652-11 | ELECT | 470MF | 20% | 10V |
| C655 | 1-126-943-11 | ELECT | 2200MF | 20% | 25V |
| C656 | 1-126-943-11 | ELECT | 2200MF | 20% | 25V |
| C657 | 1-126-943-11 | ELECT | 2200MF | 20% | 25V |
| C658 | 1-128-550-11 | ELECT | 2200MF | 20% | 50V |
| C659 | 1-102-074-00 | CERAMIC | 0.001MF | 10% | 50V |
| C660 | 1-126-235-11 | ELECT | 100MF | 20% | 6.3V |
| C661 | 1-102-074-00 | CERAMIC | 0.001MF | 10% | 50V |
| C662 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C663 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C664 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C665 | 1-104-666-11 | ELECT | 220MF | 20% | 25V |
| C666 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C671 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C672 | 1-126-971-11 | ELECT | 470MF | 20% | 50V |
| C673 | 1-164-644-11 | CERAMIC | 330PF | 10% | 500V |
| C675 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C676 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C801 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C802 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C803 | 1-126-934-11 | ELECT | 220MF | 20% | 16V |
| C804 | 1-126-934-11 | ELECT | 220MF | 20% | 16V |
| C805 | 1-126-934-11 | ELECT | 220MF | 20% | 16V |
| C806 | 1-126-934-11 | ELECT | 220MF | 20% | 16V |
| C807 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C808 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C809 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C810 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C811 | 1-137-366-11 | FILM | 0.0022MF | 5% | 50V |
| C812 | 1-136-169-00 | FILM | 0.22MF | 5% | 50V |
| C813 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C815 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C816 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C818 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C819 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C820 | 1-102-114-00 | CERAMIC | 470PF | 10% | 50V |
| C821 | 1-130-495-00 | MYLAR | 0.1MF | 5% | 50V |
| C823 | 1-101-880-00 | CERAMIC | 47PF | 5% | 50V |
| C825 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C826 | 1-136-165-00 | FILM | 0.1MF | 5% | 50V |
| C827 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C828 | 1-137-366-11 | FILM | 0.0022MF | 5% | 50V |
| C829 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V |
| C830 | 1-130-467-00 | FILM | 470PF | 5% | 50V |
| C831 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C832 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C833 | 1-126-960-11 | ELECT | 1MF | 20% | 50V |
| C834 | 1-126-968-11 | ELECT | 100MF | 20% | 50V |
| C835 | 1-126-967-11 | ELECT | 47MF | 20% | 50V |
| C836 | 1-136-169-00 | FILM | 0.22MF | 5% | 50V |
| C837 | 1-126-963-11 | ELECT | 4.7MF | 20% | 50V |
| C838 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C839 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C840 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C841 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C842 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C843 | 1-126-968-11 | ELECT | 100MF | 20% | 50V |
| C844 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C845 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C846 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C847 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C848 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C851 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C852 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C853 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C854 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C857 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C858 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C860 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C861 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C862 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C863 | 1-137-374-11 | FILM | 0.047MF | 5% | 50V |
| C864 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C865 | 1-130-471-00 | MYLAR | 0.001MF | 5% | 50V |
| C866 | 1-136-177-00 | FILM | 1MF | 5% | 50V |
| C867 | 1-101-880-00 | CERAMIC | 47PF | 5% | 50V |
| C868 | 1-101-880-00 | CERAMIC | 47PF | 5% | 50V |
| C869 | 1-130-489-00 | MYLAR | 0.033MF | 5% | 50V |
| C871 | 1-101-880-00 | CERAMIC | 47PF | 5% | 50V |
| C872 | 1-101-880-00 | CERAMIC | 47PF | 5% | 50V |
| C873 | 1-101-880-00 | CERAMIC | 47PF | 5% | 50V |
| C880 | 1-126-961-11 | ELECT | 2.2MF | 20% | 50V |
| C881 | 1-102-973-00 | CERAMIC | 100PF | 5% | 50V |
| C882 | 1-102-973-00 | CERAMIC | 100PF | 5% | 50V |
| C883 | 1-102-973-00 | CERAMIC | 100PF | 5% | 50V |
| C884 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C885 | 1-126-961-11 | ELECT | 2.2MF | 20% | 50V |
| C886 | 1-102-973-00 | CERAMIC | 100PF | 5% | 50V |
| C887 | 1-102-973-00 | CERAMIC | 100PF | 5% | 50V |
| C888 | 1-102-973-00 | CERAMIC | 100PF | 5% | 50V |
| C889 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |
| C897 | 1-104-665-11 | ELECT | 100MF | 20% | 25V |

<CONNECTOR>

| | | |
|---|---|---|
| CN501 | * 1-564-513-11 | PLUG, CONNECTOR 10P |
| CN502 | * 1-580-689-11 | PIN, CONNECTOR (PC BOARD) 4P |
| CN503 | * 1-580-689-11 | PIN, CONNECTOR (PC BOARD) 4P |
| CN504 | * 1-580-689-11 | PIN, CONNECTOR (PC BOARD) 4P |
| CN505 | * 1-506-371-00 | PIN, CONNECTOR 2P |
| CN506 | * 1-774-182-11 | CONNECTOR, BOARD TO BOARD10P |
| CN507 | * 1-564-507-11 | PLUG, CONNECTOR 4P |
| CN601 | * 1-580-843-11 | PIN, CONNECTOR (POWER) |
| CN651 | * 1-774-182-11 | CONNECTOR, BOARD TO BOARD10P |
| CN652 | * 1-774-182-11 | CONNECTOR, BOARD TO BOARD10P |
| CN653 | * 1-573-963-11 | PIN, CONNECTOR (PC BOARD) 3P |
| CN801 | * 1-564-507-11 | PLUG, CONNECTOR 4P |
| CN802 | * 1-564-507-11 | PLUG, CONNECTOR 4P |
| CN803 | * 1-564-507-11 | PLUG, CONNECTOR 4P |
| CN804 | * 1-774-182-11 | CONNECTOR, BOARD TO BOARD10P |
| CN805 | * 1-691-134-11 | PIN, CONNECTOR (PC BOARD) 2P |

<DIODE>

| | | |
|---|---|---|
| D501 | 8-719-991-33 | DIODE 1SS133T-77 |
| D502 | 8-719-991-33 | DIODE 1SS133T-77 |
| D504 | 8-719-921-63 | DIODE MTZJ-7.5B |
| D507 | ⚠ 8-719-302-43 | DIODE EL1Z |
| D508 | 8-719-900-26 | DIODE ERD29-08J |
| D509 | 8-719-945-80 | DIODE ERC06-15S |
| D510 | 8-719-945-80 | DIODE ERC06-15S |
| D511 | 8-719-302-43 | DIODE EL1Z |
| D513 | 8-719-302-43 | DIODE EL1Z |
| D514 | 8-719-908-03 | DIODE GP08D |
| D515 | 8-719-908-03 | DIODE GP08D |
| D517 | 8-719-018-82 | DIODE RGP02-20EL-6394 |
| D519 | 8-719-991-33 | DIODE 1SS133T-77 |
| D520 | 8-719-302-43 | DIODE EL1Z |
| D521 | 8-719-302-43 | DIODE EL1Z |
| D524 | 8-719-991-33 | DIODE 1SS133T-77 |
| D527 | 8-719-109-85 | DIODE RD5.1ESB2 |
| D528 | 8-719-923-86 | DIODE MTZJ-T-77-15 |
| D602 | ⚠ 8-719-052-84 | DIODE LN4SB60 |
| D651 | 8-719-510-26 | DIODE D1NL20-TA |

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

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| REF. NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| D652 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D653 | 8-719-510-02 | DIODE D1NS4 | |
| D654 | 8-719-022-97 | DIODE D2S4MF | |
| D655 | 8-719-061-56 | DIODE RBA-402LLF-A | |
| D656 | 8-719-052-92 | DIODE D10SBS4F | |
| D657 | 8-719-052-91 | DIODE D4SBS4-F | |
| D658 | 8-719-510-12 | DIODE D10SC4M | |
| D659 | 8-719-118-59 | DIODE RD5.1F-T7B1 | |
| D660 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D661 | 8-719-200-82 | DIODE 11ES2 | |
| D662 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D664 | 8-719-110-61 | DIODE RD24ESB1 | |
| D669 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D670 | 8-719-921-86 | DIODE MTZJ-13 | |
| D691 | 8-719-200-82 | DIODE 11ES2 | |
| D692 | 8-719-200-82 | DIODE 11ES2 | |
| D693 | 8-719-200-82 | DIODE 11ES2 | |
| D694 | 8-719-200-82 | DIODE 11ES2 | |
| D801 | 8-719-110-17 | DIODE RD10ESB2 | |
| D802 | 8-719-110-17 | DIODE RD10ESB2 | |
| D803 | 8-719-110-17 | DIODE RD10ESB2 | |
| D804 | 8-719-110-17 | DIODE RD10ESB2 | |
| D820 | 8-719-109-68 | DIODE RD3.6ESB1 | |
| D828 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D829 | 8-719-109-84 | DIODE RD5.1ESB1 | |
| D835 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D840 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D842 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D845 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D846 | 8-719-991-33 | DIODE 1SS133T-77 | |
| D847 | 8-719-982-19 | DIODE MTZJ-30A | |
| D848 | 8-719-923-86 | DIODE MTZJ-T-77-15 | |
| D849 | 8-719-110-22 | DIODE RD11ESB2 | |
| D850 | 8-719-109-89 | DIODE RD5.6ESB2 | |
| D852 | 8-719-923-86 | DIODE MTZJ-T-77-15 | |
| D853 | 8-719-982-19 | DIODE MTZJ-30A | |
| D854 | 8-719-982-19 | DIODE MTZJ-30A | |
| D855 | 8-719-982-19 | DIODE MTZJ-30A | |
| D856 | 8-719-923-86 | DIODE MTZJ-T-77-15 | |
| D857 | 8-719-982-19 | DIODE MTZJ-30A | |
| D859 | 8-719-923-86 | DIODE MTZJ-T-77-15 | |
| D860 | 8-719-982-19 | DIODE MTZJ-30A | |
| | | <FUSE> | |
| F601 | ⚠1-532-748-11 | FUSE, GLASS TUBE 6.3A/125V | |
| | 1-533-223-11 | CLIP, FUSE ; F601 | |
| | | <FERRITE BEAD> | |
| FB501 | 1-410-397-21 | FERRITE BEAD INDUCTOR 1.1UH | |
| FB651 | 1-410-396-41 | FERRITE BEAD INDUCTOR 0.45UH | |
| FB652 | 1-410-396-41 | FERRITE BEAD INDUCTOR 0.45UH | |
| FB653 | 1-410-396-41 | FERRITE BEAD INDUCTOR 0.45UH | |
| FB654 | 1-410-396-41 | FERRITE BEAD INDUCTOR 0.45UH | |
| FB655 | 1-410-396-41 | FERRITE BEAD INDUCTOR 0.45UH | |
| FB656 | 1-410-396-41 | FERRITE BEAD INDUCTOR 0.45UH | |
| FB657 | 1-410-396-41 | FERRITE BEAD INDUCTOR 0.45UH | |
| | | <IC> | |
| IC501 | 8-759-133-90 | IC uPC339C | |
| IC601 | ⚠8-729-041-12 | TRANSISTOR MX0841AB-F | |
| IC651 | ⚠1-810-051-11 | POWER MODULE DM-48 | |
| IC652 | 8-759-012-67 | IC MC7905CT | |
| IC653 | 8-759-231-53 | IC TA7805S | |
| IC655 | 8-759-231-58 | IC TA7812S | |
| IC801 | 8-759-327-51 | IC PA0053B | |
| IC802 | 8-759-327-51 | IC PA0053B | |
| IC803 | 8-759-183-37 | IC CA0007AD | |
| IC804 | 8-759-464-79 | IC PM0011AS | |
| IC805 | 8-759-711-28 | IC NJM2058D | |
| IC806 | 8-759-464-79 | IC PM0011AS | |
| IC808 | 8-759-464-79 | IC PM0011AS | |
| IC809 | 8-749-012-97 | IC STK392-110 | |
| IC810 | 8-749-012-97 | IC STK392-110 | |
| IC811 | 8-759-634-51 | IC M5218AP | |
| | | <COIL> | |
| L502 | 1-410-478-11 | INDUCTOR 47UH | |
| L503 | 1-459-111-00 | COIL, DRAM CORE (CDI) | |
| L506 | 1-412-552-11 | INDUCTOR 2.2mH | |
| L509 | 1-412-533-21 | INDUCTOR 47UH | |
| L601 | ⚠1-424-248-11 | TRANSFORMER, LINE FILTER | |
| L651 | 1-414-158-11 | INDUCTOR 2.2UH | |
| L652 | 1-414-158-11 | INDUCTOR 2.2UH | |
| L653 | 1-414-158-11 | INDUCTOR 2.2UH | |
| L654 | 1-414-158-11 | INDUCTOR 2.2UH | |
| L656 | 1-412-523-11 | INDUCTOR 6.8UH | |
| L801 | 1-406-975-21 | COIL, CHOKE 47UH | |
| L802 | 1-406-975-21 | COIL, CHOKE 47UH | |
| | | <NEON LAMP> | |
| NL501 | 1-519-108-99 | LAMP, NEON | |
| | | <IC LINK> | |
| PS601 | ⚠1-533-597-21 | LINK, IC | |
| PS602 | ⚠1-533-597-21 | LINK, IC | |
| | | <TRANSISTOR> | |
| Q501 | 8-729-119-80 | TRANSISTOR 2SC2688-LK | |
| Q502 | 8-729-024-05 | TRANSISTOR 2SD2348(LBSONY-1) | |
| Q503 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q504 | 8-729-823-81 | TRANSISTOR 2SC4632LS-CB7 | |
| Q505 | 8-729-931-45 | TRANSISTOR IRF614 | |
| Q506 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q507 | 8-729-823-81 | TRANSISTOR 2SC4632LS-CB7 | |
| Q651 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q652 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q653 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q654 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q655 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q656 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q657 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q658 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q659 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q660 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q661 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q662 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q802 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q803 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| Q804 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q805 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q809 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| Q810 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | |
| | | <RESISTOR> | |
| R501 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R502 | 1-215-879-11 | METAL OXIDE 47K 5% 1W | F |
| R503 | 1-247-843-11 | CARBON 3.3K 5% 1/4W | |
| R504 | 1-249-419-11 | CARBON 1.5K 5% 1/4W | |
| R506 | 1-215-444-00 | METAL 9.1K 1% 1/4W | |

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• The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

| REF. NO. | PART NO. | DESCRIPTION | | | REMARK | |
|---|---|---|---|---|---|---|
| R507 | 1-249-422-11 | CARBON | 2.7K | 5% | 1/4W | |
| R508 | 1-260-337-11 | CARBON | 5.6K | 5% | 1/2W | |
| R509 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R510 | 1-215-919-11 | METAL OXIDE | 2.2K | 5% | 3W | F |
| R511 | 1-215-919-11 | METAL OXIDE | 2.2K | 5% | 3W | F |
| R512 | 1-215-919-11 | METAL OXIDE | 2.2K | 5% | 3W | F |
| R513 | 1-249-424-11 | CARBON | 3.9K | 5% | 1/4W | |
| ⊠R514 ⚠ | | METAL | | | 1/4W | |
| R516 | 1-215-443-00 | METAL | 8.2K | 1% | 1/4W | |
| R517 | 1-215-449-00 | METAL | 15K | 1% | 1/4W | |
| R518 | 1-215-456-00 | METAL | 30K | 1% | 1/4W | |
| R519 | 1-247-863-91 | CARBON | 22K | 5% | 1/4W | |
| R522 | 1-249-428-11 | CARBON | 8.2K | 5% | 1/4W | |
| R523 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R524 | 1-247-863-91 | CARBON | 22K | 5% | 1/4W | |
| R525 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W | F |
| R528 | 1-215-910-00 | METAL OXIDE | 68 | 5% | 3W | F |
| R530 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R531 | 1-260-326-11 | CARBON | 680 | 5% | 1/2W | |
| R532 | 1-260-313-51 | CARBON | 56 | 5% | 1/2W | |
| R533 | 1-214-912-00 | METAL | 91K | 1% | 1/2W | |
| R534 | 1-215-479-00 | METAL | 270K | 1% | 1/4W | |
| R535 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W | |
| R536 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W | F |
| R537 | 1-260-336-11 | CARBON | 4.7K | 5% | 1/2W | |
| R538 | 1-247-863-91 | CARBON | 22K | 5% | 1/4W | |
| R539 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W | F |
| R540 | 1-249-379-11 | CARBON | 0.68 | 5% | 1/4W | F |
| R541 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R542 | 1-215-862-11 | METAL OXIDE | 68 | 5% | 1W (48S35/61S35) | F |
| R542 | 1-215-864-00 | METAL OXIDE | 150 | 5% | 1W (46C36/53S35) | F |
| R544 | 1-215-862-11 | METAL OXIDE | 68 | 5% | 1W (48S35/61S35) | F |
| R544 | 1-215-864-00 | METAL OXIDE | 150 | 5% | 1W (46C36/53S35) | F |
| R545 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W | F |
| R546 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W | F |
| R547 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R548 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | |
| R549 | 1-247-863-91 | CARBON | 22K | 5% | 1/4W | |
| R550 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R551 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R552 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R553 | 1-247-881-00 | CARBON | 120K | 5% | 1/4W | |
| R554 | 1-249-405-11 | CARBON | 100 | 5% | 1/4W | F |
| R556 | 1-260-123-11 | CARBON | 100K | 5% | 1/2W | |
| R557 | 1-216-490-11 | METAL OXIDE | 39K | 5% | 3W | F |
| R558 | 1-216-490-11 | METAL OXIDE | 39K | 5% | 3W | F |
| R559 | 1-216-490-11 | METAL OXIDE | 39K | 5% | 3W | F |
| R560 | 1-215-399-00 | METAL | 120 | 1% | 1/4W | |
| ⊠R561 ⚠ | | METAL | | | 1/4W | |
| R563 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R564 | 1-260-131-11 | CARBON | 470K | 5% | 1/2W | |
| R565 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R566 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W | F |
| R567 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W | F |
| R568 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W | |
| R569 | 1-216-392-11 | METAL OXIDE | 1.8 | 5% | 3W | F |
| R570 | 1-215-910-00 | METAL OXIDE | 68 | 5% | 3W | F |
| R571 | 1-249-422-11 | CARBON | 2.7K | 5% | 1/4W | |
| R572 | 1-247-895-91 | CARBON | 470K | 5% | 1/4W | |
| R573 | 1-249-430-11 | CARBON | 12K | 5% | 1/4W | |
| R574 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R577 | 1-249-422-11 | CARBON | 2.7K | 5% | 1/4W | |
| R579 | 1-247-895-91 | CARBON | 470K | 5% | 1/4W | |
| R580 | 1-249-434-11 | CARBON | 27K | 5% | 1/4W | |
| R581 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R583 | 1-249-428-11 | CARBON | 8.2K | 5% | 1/4W | |
| R584 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W | |
| R585 | 1-216-490-11 | METAL OXIDE | 39K | 5% | 3W | F |
| R586 | 1-260-292-11 | CARBON | 1 | 5% | 1/2W | |
| R588 | 1-247-863-91 | CARBON | 22K | 5% | 1/4W | |
| R589 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W | |
| R591 | 1-215-917-11 | METAL OXIDE | 1K | 5% | 3W | F |
| R601 ⚠ | 1-219-512-91 | RESISTOR(SURGE RESISTANT) | 2.2M | | | |
| R602 ⚠ | 1-202-981-21 | WIREWOUND | 0.82 | 5% | 20W | |
| R608 ⚠ | 1-202-933-61 | FUSIBLE | 0.1 | 10% | 1/2W | F |
| R609 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W | |
| R610 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W | |
| R611 | 1-216-353-00 | METAL OXIDE | 2.2 | 5% | 1W | F |
| R612 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W | |
| R613 | 1-216-353-00 | METAL OXIDE | 2.2 | 5% | 1W | F |
| R614 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W | |
| R651 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R652 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | |
| R653 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W | F |
| R655 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W | |
| R656 | 1-260-288-11 | CARBON | 0.47 | 5% | 1/2W | |
| R657 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R658 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R659 | 1-260-095-11 | CARBON | 470 | 5% | 1/2W | |
| R660 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | |
| R661 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | F |
| R662 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | |
| R664 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | |
| R665 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R667 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R668 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W | F |
| R669 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R672 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | |
| R673 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W | |
| R675 | 1-215-417-00 | METAL | 680 | 1% | 1/4W | |
| R676 | 1-216-369-00 | METAL OXIDE | 1 | 5% | 2W | F |
| R677 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R679 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W | |
| R680 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R681 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R682 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R683 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R684 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R686 | 1-215-421-00 | METAL | 1K | 1% | 1/4W | |
| R687 | 1-215-441-00 | METAL | 6.8K | 1% | 1/4W | |
| R688 | 1-215-481-00 | METAL | 330K | 1% | 1/4W | |
| R689 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | |
| R690 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R692 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | |
| R693 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R695 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R696 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R697 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R801 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R803 | 1-249-430-11 | CARBON | 12K | 5% | 1/4W | |
| R804 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R805 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R806 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R807 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R808 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R809 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W | |
| R810 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R811 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R812 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R813 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R814 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R815 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R816 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R817 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |

| REF. NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R818 | 1-249-430-11 | CARBON | 12K | 5% | 1/4W |
| R820 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R821 | 1-249-428-11 | CARBON | 8.2K | 5% | 1/4W |
| R822 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R823 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R824 | 1-215-462-00 | METAL | 51K | 1% | 1/4W |
| R825 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R826 | 1-215-462-00 | METAL | 51K | 1% | 1/4W |
| R827 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R828 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W |
| R829 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W |
| R830 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W |
| R831 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W |
| R832 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R833 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R834 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R835 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R836 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R837 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R838 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R841 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R842 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R843 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R844 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R845 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R846 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R847 | 1-215-469-00 | METAL | 100K | 1% | 1/4W |
| R850 | 1-215-469-00 | METAL | 100K | 1% | 1/4W |
| R851 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R852 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R853 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W |
| R854 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R855 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R856 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R857 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R858 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R859 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R860 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R861 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R862 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R863 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R865 | 1-249-424-11 | CARBON | 3.9K | 5% | 1/4W |
| R867 | 1-215-461-00 | METAL | 47K | 1% | 1/4W |
| R868 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R869 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R871 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R872 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R873 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R874 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R875 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R879 | 1-215-444-00 | METAL | 9.1K | 1% | 1/4W |
| R880 | 1-259-878-11 | CARBON | 1.5M | 5% | 1/4W |
| R881 | 1-249-408-11 | CARBON | 180 | 5% | 1/4W |
| R882 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R883 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R884 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R885 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R886 | 1-249-428-11 | CARBON | 8.2K | 5% | 1/4W |
| R887 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R888 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R889 | 1-249-438-11 | CARBON | 56K | 5% | 1/4W |
| R890 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R891 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R892 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R895 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R896 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R897 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R898 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R899 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R901 | 1-249-439-11 | CARBON | 68K | 5% | 1/4W |
| R902 | 1-249-438-11 | CARBON | 56K | 5% | 1/4W |
| R903 | 1-215-421-00 | METAL | 1K | 1% | 1/4W |
| R904 | 1-214-800-11 | METAL | 2.2 | 1% | 1/2W |
| R905 | 1-214-800-11 | METAL | 2.2 | 1% | 1/2W |
| R906 | 1-214-800-11 | METAL | 2.2 | 1% | 1/2W |
| R907 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R908 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R909 | 1-215-421-00 | METAL | 1K | 1% | 1/4W |
| R910 | 1-215-421-00 | METAL | 1K | 1% | 1/4W |
| R911 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R912 | 1-215-469-00 | METAL | 100K | 1% | 1/4W |
| R913 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R914 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R915 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R916 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R917 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R918 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R919 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W |
| R920 | 1-214-800-11 | METAL | 2.2 | 1% | 1/2W |
| R921 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W |
| R922 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R923 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R924 | 1-215-444-00 | METAL | 9.1K | 1% | 1/4W |
| R925 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R926 | 1-249-408-11 | CARBON | 180 | 5% | 1/4W |
| R927 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R928 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R929 | 1-214-800-11 | METAL | 2.2 | 1% | 1/2W |
| R930 | 1-214-800-11 | METAL | 2.2 | 1% | 1/2W |
| R931 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R933 | 1-215-453-00 | METAL | 22K | 1% | 1/4W |
| R934 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R935 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R936 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R937 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W |
| R938 | 1-215-421-00 | METAL | 1K | 1% | 1/4W |
| R939 | 1-259-878-11 | CARBON | 1.5M | 5% | 1/4W |
| R940 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R941 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R942 | 1-249-421-11 | CARBON | 2.2K | 5% | 1/4W |
| R943 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R944 | 1-215-421-00 | METAL | 1K | 1% | 1/4W |
| R945 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R946 | 1-215-421-00 | METAL | 1K | 1% | 1/4W |
| R947 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W |
| R948 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R949 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R950 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R951 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R952 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R953 | 1-247-863-91 | CARBON | 22K | 5% | 1/4W |
| R954 | 1-215-433-00 | METAL | 3.3K | 1% | 1/4W |
| R955 | 1-215-433-00 | METAL | 3.3K | 1% | 1/4W |
| R956 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R957 | 1-214-800-11 | METAL | 2.2 | 1% | 1/2W |
| R958 | 1-214-800-11 | METAL | 2.2 | 1% | 1/2W |
| R959 | 1-215-433-00 | METAL | 3.3K | 1% | 1/4W |
| R961 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R962 | 1-214-800-11 | METAL | 2.2 | 1% | 1/2W |
| R963 | 1-214-800-11 | METAL | 2.2 | 1% | 1/2W |
| R964 | 1-215-433-00 | METAL | 3.3K | 1% | 1/4W |
| R965 | 1-215-433-00 | METAL | 3.3K | 1% | 1/4W |
| R966 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R967 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R968 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R969 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |

# G CR

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

| REF. NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| R970 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R971 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R972 | 1-215-455-00 | METAL | 27K | 1% | 1/4W |
| R973 | 1-214-800-11 | METAL | 2.2 | 1% | 1/2W |
| R974 | 1-215-463-00 | METAL | 56K | 1% | 1/4W |
| R975 | 1-214-800-11 | METAL | 2.2 | 1% | 1/2W |
| R976 | 1-215-433-00 | METAL | 3.3K | 1% | 1/4W |
| R977 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R978 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R979 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R980 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R981 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R982 | 1-247-895-91 | CARBON | 470K | 5% | 1/4W |
| R983 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R984 | 1-215-444-00 | METAL | 9.1K | 1% | 1/4W |
| R985 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R987 | 1-249-408-11 | CARBON | 180 | 5% | 1/4W |
| R988 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R989 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R990 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R991 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R992 | 1-259-878-11 | CARBON | 1.5M | 5% | 1/4W |
| R993 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R994 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R995 | 1-249-413-11 | CARBON | 470 | 5% | 1/4W |
| R996 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R997 | 1-215-445-00 | METAL | 10K | 1% | 1/4W |
| R998 | 1-249-434-11 | CARBON | 27K | 5% | 1/4W |
| R999 | 1-249-434-11 | CARBON | 27K | 5% | 1/4W |

<RELAY>

| | | |
|---|---|---|
| RY601 | ⚠1-755-032-11 | RELAY |

<TRANSFORMER>

| | | |
|---|---|---|
| T501 | ⚠1-437-195-14 | TRANSFORMER, HORIZONTAL DRIVE |
| T502 | ⚠1-431-211-11 | TRANSFORMER, FERRITE (PMT) |
| T503 | ⚠1-431-212-11 | TRANSFORMER, HORIZONTAL LINEAR |
| T504 | ⚠1-453-238-11 | TRANSFORMER ASSY, FLYBACK (NX-4007//X4A4) |
| T603 | ⚠1-423-665-11 | TRANSFORMER, POWER |
| T604 | ⚠1-429-992-11 | TRANSFORMER, CONVERTER (PRT) |
| T605 | ⚠1-429-985-11 | TRANSFORMER, CONVERTER (PIT) |

<THERMISTOR>

| | | |
|---|---|---|
| TH801 | 1-808-269-11 | THERMISTOR |

**********

* A-1331-667-A CR BOARD, COMPLETE
**********

<CAPACITOR>

| | | | | | |
|---|---|---|---|---|---|
| C702 | 1-102-949-00 | CERAMIC | 12PF | 5% | 50V |
| C703 | 1-104-664-11 | ELECT | 47MF | 20% | 25V |
| C704 | 1-126-964-11 | ELECT | 10MF | 20% | 50V |
| C705 | 1-161-754-00 | CERAMIC | 0.001MF | 10% | 2KV |
| C706 | 1-126-934-11 | ELECT | 220MF | 20% | 16V |
| C707 | 1-107-585-11 | CERAMIC | 5PF | 0.25PF | 500V |
| C708 | 1-102-050-00 | CERAMIC | 0.01MF | | 500V |
| C709 | 1-162-115-00 | CERAMIC | 330PF | 10% | 2KV |
| C712 | 1-107-662-11 | ELECT | 22MF | 20% | 250V |

<CONNECTOR>

| | | |
|---|---|---|
| CN701 | 1-695-915-11 | TAB (CONTACT) |
| CN702 | *1-564-510-11 | PLUG, CONNECTOR 7P |
| CN703 | *1-564-512-11 | PLUG, CONNECTOR 9P |
| CN704 | *1-508-784-00 | PIN, CONNECTOR (5mm PITCH) 1P |
| CN705 | ⚠1-251-182-11 | SOCKET, PICTURE TUBE |
| CN706 | *1-564-512-11 | PLUG, CONNECTOR 9P |

<DIODE>

| | | |
|---|---|---|
| D701 | 8-719-991-33 | DIODE 1SS133T-77 |
| D702 | 8-719-991-33 | DIODE 1SS133T-77 |
| D703 | 8-719-991-33 | DIODE 1SS133T-77 |
| D704 | 8-719-991-33 | DIODE 1SS133T-77 |
| D705 | 8-719-923-86 | DIODE MTZJ-T-77-15 |
| D706 | 8-719-923-86 | DIODE MTZJ-T-77-15 |
| D708 | 8-719-110-17 | DIODE RD10ESB2 |
| D709 | 8-719-109-89 | DIODE RD5.6ESB2 |
| D710 | 8-719-991-33 | DIODE 1SS133T-77 |

<IC>

| | | |
|---|---|---|
| IC701 | 8-759-434-39 | IC TDA6106Q |

<COIL>

| | | |
|---|---|---|
| L701 | 1-408-429-00 | INDUCTOR 470UH |

<NEON LAMP>

| | | |
|---|---|---|
| NL701 | 1-519-108-99 | LAMP, NEON |

<TRANSISTOR>

| | | |
|---|---|---|
| Q701 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE |
| Q702 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE |

<RESISTOR>

| | | | | | | |
|---|---|---|---|---|---|---|
| R701 | 1-219-743-11 | RESISTOR (SURGE RESISTANT) 100 | | | | |
| R702 | 1-215-425-00 | METAL | 1.5K | 1% | 1/4W | |
| R703 | 1-215-437-00 | METAL | 4.7K | 1% | 1/4W | |
| R704 | 1-260-132-11 | CARBON | 560K | 5% | 1/2W | |
| R705 | 1-215-424-00 | METAL | 1.3K | 1% | 1/4W | |
| R706 | 1-215-437-00 | METAL | 4.7K | 1% | 1/4W | |
| R707 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W | |
| R708 | 1-215-428-00 | METAL | 2K | 1% | 1/4W | |
| R709 | 1-260-101-11 | CARBON | 1.5K | 5% | 1/2W | |
| R710 | 1-215-903-11 | METAL OXIDE | 68K | 5% | 2W | F |
| R711 | 1-249-435-11 | CARBON | 33K | 5% | 1/4W | |
| R712 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R713 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W | |
| R714 | 1-260-099-11 | CARBON | 1K | 5% | 1/2W | |
| R715 | 1-260-133-11 | CARBON | 680K | 5% | 1/2W | |
| R717 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R718 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R719 | 1-260-087-11 | CARBON | 100 | 5% | 1/2W | |

<SPARK GAP>

| | | |
|---|---|---|
| SG701 | 1-519-422-11 | GAP, SPARK |
| SG702 | 1-519-422-11 | GAP, SPARK |

**********

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Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

# CG CB HA

| REF. NO. | PART NO. | DESCRIPTION | | | | REMARK |
|---|---|---|---|---|---|---|
| | * A-1331-668-A | CG BOARD, COMPLETE ********** | | | | |
| | | <CAPACITOR> | | | | |
| C732 | 1-102-949-00 | CERAMIC | 12PF | 5% | 50V | |
| C733 | 1-161-754-00 | CERAMIC | 0.001MF | 10% | 2KV | |
| C735 | 1-102-050-00 | CERAMIC | 0.01MF | | 500V | |
| C736 | 1-162-115-00 | CERAMIC | 330PF | 10% | 2KV | |
| C737 | 1-107-662-11 | ELECT | 22MF | 20% | 250V | |
| C743 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| | | <CONNECTOR> | | | | |
| CN731 | 1-695-915-11 | TAB (CONTACT) | | | | |
| CN732 | * 1-564-510-11 | PLUG, CONNECTOR 7P | | | | |
| CN733 | * 1-564-507-11 | PLUG, CONNECTOR 4P | | | | |
| CN734 | * 1-508-784-00 | PIN, CONNECTOR (5mm PITCH) 1P | | | | |
| CN735 | ⚠ 1-251-182-11 | SOCKET, PICTURE TUBE | | | | |
| CN736 | * 1-564-512-11 | PLUG, CONNECTOR 9P | | | | |
| CN737 | * 1-564-512-11 | PLUG, CONNECTOR 9P | | | | |
| | | <DIODE> | | | | |
| D731 | 8-719-991-33 | DIODE 1SS133T-77 | | | | |
| D732 | 8-719-991-33 | DIODE 1SS133T-77 | | | | |
| D733 | 8-719-110-17 | DIODE RD10ESB2 | | | | |
| | | <IC> | | | | |
| IC731 | 8-759-434-39 | IC TDA6106Q | | | | |
| | | <COIL> | | | | |
| L731 | 1-408-429-00 | INDUCTOR 470UH | | | | |
| | | <NEON LAMP> | | | | |
| NL731 | 1-519-108-99 | LAMP, NEON | | | | |
| | | <RESISTOR> | | | | |
| R731 | 1-219-743-11 | RESISTOR (SURGE RESISTANT) 100 | | | | |
| R732 | 1-260-132-11 | CARBON | 560K | 5% | 1/2W | |
| R733 | 1-215-421-00 | METAL | 1K | 1% | 1/4W | |
| R735 | 1-249-441-11 | CARBON | 100K | 5% | 1/4W | |
| R736 | 1-215-430-00 | METAL | 2.4K | 1% | 1/4W | |
| R737 | 1-260-101-11 | CARBON | 1.5K | 5% | 1/2W | |
| R738 | 1-215-903-11 | METAL OXIDE | 68K | 5% | 2W | F |
| R739 | 1-260-133-11 | CARBON | 680K | 5% | 1/2W | |
| R740 | 1-260-099-11 | CARBON | 1K | 5% | 1/2W | |
| R741 | 1-215-435-00 | METAL | 3.9K | 1% | 1/4W | |
| R742 | 1-247-885-00 | CARBON | 180K | 5% | 1/4W | |
| | | <SPARK GAP> | | | | |
| SG731 | 1-519-422-11 | GAP, SPARK | | | | |
| SG732 | 1-519-422-11 | GAP, SPARK | | | | |

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| REF. NO. | PART NO. | DESCRIPTION | | | | REMARK |
|---|---|---|---|---|---|---|
| | * A-1331-669-A | CB BOARD, COMPLETE ********** | | | | |
| | | <CAPACITOR> | | | | |
| C762 | 1-102-949-00 | CERAMIC | 12PF | 5% | 50V | |
| C763 | 1-161-754-00 | CERAMIC | 0.001MF | 10% | 2KV | |
| C765 | 1-102-050-00 | CERAMIC | 0.01MF | | 500V | |
| C766 | 1-162-115-00 | CERAMIC | 330PF | 10% | 2KV | |
| C767 | 1-107-662-11 | ELECT | 22MF | 20% | 250V | |
| | | <CONNECTOR> | | | | |
| CN761 | 1-695-915-11 | TAB (CONTACT) | | | | |
| CN762 | * 1-564-507-11 | PLUG, CONNECTOR 4P | | | | |
| CN763 | * 1-508-784-00 | PIN, CONNECTOR (5mm PITCH) 1P | | | | |
| CN764 | ⚠ 1-251-182-11 | SOCKET, PICTURE TUBE | | | | |
| CN765 | * 1-564-512-11 | PLUG, CONNECTOR 9P | | | | |
| CN766 | * 1-564-513-11 | PLUG, CONNECTOR 10P | | | | |
| | | <DIODE> | | | | |
| D761 | 8-719-991-33 | DIODE 1SS133T-77 | | | | |
| D762 | 8-719-923-86 | DIODE MTZJ-T-77-15 | | | | |
| D763 | 8-719-110-17 | DIODE RD10ESB2 | | | | |
| D764 | 8-719-923-86 | DIODE MTZJ-T-77-15 | | | | |
| | | <IC> | | | | |
| IC761 | 8-759-434-39 | IC TDA6106Q | | | | |
| | | <COIL> | | | | |
| L761 | 1-408-429-00 | INDUCTOR 470UH | | | | |
| | | <NEON LAMP> | | | | |
| NL761 | 1-519-108-99 | LAMP, NEON | | | | |
| | | <RESISTOR> | | | | |
| R761 | 1-219-743-11 | RESISTOR (SURGE RESISTANT) 100 | | | | |
| R762 | 1-260-132-11 | CARBON | 560K | 5% | 1/2W | |
| R763 | 1-215-420-00 | METAL | 910 | 1% | 1/4W | |
| R764 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W | |
| R765 | 1-215-430-00 | METAL | 2.4K | 1% | 1/4W | |
| R766 | 1-260-101-11 | CARBON | 1.5K | 5% | 1/2W | |
| R767 | 1-215-903-11 | METAL OXIDE | 68K | 5% | 2W | F |
| R768 | 1-260-133-11 | CARBON | 680K | 5% | 1/2W | |
| R769 | 1-260-099-11 | CARBON | 1K | 5% | 1/2W | |
| R770 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W | |
| R771 | 1-260-087-11 | CARBON | 100 | 5% | 1/2W | |
| | | <SPARK GAP> | | | | |
| SG761 | 1-519-422-11 | GAP, SPARK | | | | |
| SG762 | 1-519-422-11 | GAP, SPARK | | | | |

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| REF. NO. | PART NO. | DESCRIPTION | | | | REMARK |
|---|---|---|---|---|---|---|
| | * A-1372-288-A | HA BOARD, COMPLETE ********** | | | | (except KP-46C36) |
| | * A-1372-304-A | HA BOARD, COMPLETE (KP-46C36 only) ********** | | | | |
| | | <CAPACITOR> | | | | |
| C1301 | 1-137-399-11 | FILM | 0.1MF | 5% | 50V | (46C36 only) |
| C1302 | 1-126-959-11 | ELECT | 0.47MF | 20% | 50V | (46C36 only) |
| C1304 | 1-126-964-11 | ELECT | 10MF | 20% | 50V | |
| C1305 | 1-137-399-11 | FILM | 0.1MF | 5% | 50V | (46C36 only) |

# HA ZR ZG

| REF. NO. | PART NO. | DESCRIPTION | | | REMARK |
|---|---|---|---|---|---|
| C1306 | 1-126-964-11 | ELECT | 10MF | 20% | 50V (46C36 only) |
| C1307 | 1-126-964-11 | ELECT | 10MF | 20% | 50V (46C36 only) |
| | | <CONNECTOR> | | | |
| CN1301 | 1-564-523-11 | PLUG, CONNECTOR 8P | | | |
| CN1302 | *1-564-526-11 | PLUG, CONNECTOR 11P (46C36 only) | | | |
| CN1304 | *1-564-518-11 | PLUG, CONNECTOR 3P (46C36 only) | | | |
| | | <DIODE> | | | |
| D1301 | 8-719-110-17 | DIODE RD10ESB2 (46C36 only) | | | |
| D1302 | 8-719-110-17 | DIODE RD10ESB2 (46C36 only) | | | |
| D1303 | 8-719-110-17 | DIODE RD10ESB2 (46C36 only) | | | |
| D1304 | 8-719-053-43 | DIODE SLR-325VCT31 | | | |
| D1305 | 8-719-053-43 | DIODE SLR-325VCT31 | | | |
| D1306 | 8-719-110-17 | DIODE RD10ESB2 (46C36 only) | | | |
| D1307 | 8-719-110-17 | DIODE RD10ESB2 (46C36 only) | | | |
| D1308 | 8-719-110-17 | DIODE RD10ESB2 (46C36 only) | | | |
| | | <IC> | | | |
| IC1301 | 8-741-780-51 | IC SBX1780-51 | | | |
| | | <JACK> | | | |
| J1301 | 1-770-361-11 | TERMINAL BLOCK, S (46C36 only) | | | |
| | | <RESISTOR> | | | |
| R1301 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W (46C36 only) |
| R1302 | 1-249-416-11 | CARBON | 820 | 5% | 1/4W |
| R1303 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R1304 | 1-249-425-11 | CARBON | 4.7K | 5% | 1/4W |
| R1305 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R1306 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W |
| R1307 | 1-249-420-11 | CARBON | 1.8K | 5% | 1/4W |
| R1308 | 1-247-895-91 | CARBON | 470K | 5% | 1/4W (46C36 only) |
| R1309 | 1-247-895-91 | CARBON | 470K | 5% | 1/4W (46C36 only) |
| R1310 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R1311 | 1-247-804-11 | CARBON | 75 | 5% | 1/4W (46C36 only) |
| R1312 | 1-247-804-11 | CARBON | 75 | 5% | 1/4W (46C36 only) |
| R1314 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R1315 | 1-247-804-11 | CARBON | 75 | 5% | 1/4W (46C36 only) |
| | | <SWITCH> | | | |
| S1301 | 1-572-198-11 | SWITCH, KEYBOARD | | | |
| S1302 | 1-572-198-11 | SWITCH, KEYBOARD | | | |
| S1303 | 1-572-198-11 | SWITCH, KEYBOARD | | | |
| S1304 | 1-572-198-11 | SWITCH, KEYBOARD | | | |
| S1305 | 1-572-198-11 | SWITCH, KEYBOARD | | | |
| S1306 | 1-572-198-11 | SWITCH, KEYBOARD | | | |
| S1307 | 1-572-198-11 | SWITCH, KEYBOARD | | | |

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| REF. NO. | PART NO. | DESCRIPTION | | | | REMARK |
|---|---|---|---|---|---|---|
| | *A-1390-682-A | ZR BOARD, COMPLETE ********** | | | | |
| | | <CONNECTOR> | | | | |
| CN1401 | *1-564-510-11 | PLUG, CONNECTOR 7P | | | | |
| CN1403 | *1-564-506-11 | PLUG, CONNECTOR 3P | | | | |
| CN1404 | *1-564-507-11 | PLUG, CONNECTOR 4P | | | | |
| CN1405 | *1-580-689-11 | PIN, CONNECTOR (PC BOARD) 4P | | | | |
| | | <CONNECTOR> | | | | |
| DY1401 | 1-451-454-11 | DEFLECTION YOKE | | | | |
| | | <RESISTOR> | | | | |
| R1401 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W | |
| R1402 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W | |
| R1415 | 1-215-908-00 | METAL OXIDE | 33 | 5% | 3W | F |
| R1418 | 1-216-475-11 | METAL OXIDE | 120 | 5% | 3W | F |

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| | | | | | |
|---|---|---|---|---|---|
| | *A-1390-683-A | ZG BOARD, COMPLETE ********** | | | |
| | 4-382-854-11 | SCREW (M3X10), P, SW (+) | | | |
| | | <CAPACITOR> | | | |
| C1433 | 1-104-999-11 | MYLAR | 0.1MF | 10% | 200V |
| C1434 | 1-106-383-00 | MYLAR | 0.047MF | 10% | 200V |
| C1435 | 1-107-667-11 | ELECT | 2.2MF | 20% | 160V |
| C1436 | 1-137-364-11 | FILM | 0.001MF | 5% | 50V |
| C1437 | 1-137-364-11 | FILM | 0.001MF | 5% | 50V |
| C1438 | 1-106-383-00 | MYLAR | 0.047MF | 10% | 200V |
| C1439 | 1-161-830-00 | CERAMIC | 0.0047MF | | 500V |
| C1440 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C1441 | 1-102-074-00 | CERAMIC | 0.001MF | 10% | 50V |
| C1443 | 1-126-935-11 | ELECT | 470MF | 20% | 16V |
| C1444 | 1-107-639-11 | ELECT | 47MF | 20% | 160V |
| C1445 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| C1446 | 1-126-933-11 | ELECT | 100MF | 20% | 16V |
| | | <CONNECTOR> | | | |
| CN1431 | *1-564-508-11 | PLUG, CONNECTOR 5P | | | |
| CN1432 | *1-564-510-11 | PLUG, CONNECTOR 7P | | | |
| CN1433 | *1-564-507-11 | PLUG, CONNECTOR 4P | | | |
| CN1434 | *1-580-689-11 | PIN, CONNECTOR (PC BOARD) 4P | | | |
| CN1461 | *1-564-506-11 | PLUG, CONNECTOR 3P | | | |
| CN1462 | *1-564-507-11 | PLUG, CONNECTOR 4P | | | |
| CN1464 | *1-564-507-11 | PLUG, CONNECTOR 4P | | | |
| | | <DIODE> | | | |
| D1431 | 8-719-110-88 | DIODE RD39ESB2 | | | |
| D1432 | 8-719-110-88 | DIODE RD39ESB2 | | | |
| D1433 | 8-719-991-33 | DIODE 1SS133T-77 | | | |
| | | <CONNECTOR> | | | |
| DY1431 | 1-451-454-11 | DEFLECTION YOKE | | | |
| | | <COIL> | | | |
| L1431 | 1-410-478-11 | INDUCTOR 47UH | | | |
| L1432 | 1-410-478-11 | INDUCTOR 47UH | | | |

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

**ZG**

| REF. NO. | PART NO. | DESCRIPTION | | | | REMARK |
|---|---|---|---|---|---|---|
| | | <TRANSISTOR> | | | | |
| Q1431 | 8-729-017-06 | TRANSISTOR 2SC4793 | | | | |
| Q1432 | 8-729-017-05 | TRANSISTOR 2SA1837 | | | | |
| Q1433 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | | | | |
| Q1434 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | | | | |
| Q1435 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | | | | |
| Q1436 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | | | | |
| | | <RESISTOR> | | | | |
| R1431 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W | |
| R1432 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W | |
| R1433 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W | F |
| R1435 | 1-215-908-00 | METAL OXIDE | 33 | 5% | 3W | F |
| R1436 | 1-216-475-11 | METAL OXIDE | 120 | 5% | 3W | F |
| R1437 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W | |
| R1438 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W | |
| R1439 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W | |
| R1440 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W | F |
| R1441 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R1442 | 1-247-815-91 | CARBON | 220 | 5% | 1/4W | |
| R1443 | 1-249-377-11 | CARBON | 0.47 | 5% | 1/4W | F |
| R1445 | 1-249-403-11 | CARBON | 68 | 5% | 1/4W | |
| R1448 | 1-249-416-11 | CARBON | 820 | 5% | 1/4W | |
| R1449 | 1-249-403-11 | CARBON | 68 | 5% | 1/4W | |
| R1450 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R1451 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W | |
| R1452 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R1453 | 1-249-401-11 | CARBON | 47 | 5% | 1/4W | |
| R1454 | 1-260-311-11 | CARBON | 39 | 5% | 1/2W | |
| R1455 | 1-249-384-11 | CARBON | 1.8 | 5% | 1/4W | F |
| R1456 | 1-215-916-00 | METAL OXIDE | 680 | 5% | 3W | F |
| R1457 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | F |
| R1458 | 1-249-384-11 | CARBON | 1.8 | 5% | 1/4W | F |
| R1459 | 1-249-400-11 | CARBON | 39 | 5% | 1/4W | F |
| R1461 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W | |
| R1462 | 1-249-414-11 | CARBON | 560 | 5% | 1/4W | |
| R1463 | 1-249-399-11 | CARBON | 33 | 5% | 1/4W | |
| R1464 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R1465 | 1-215-908-00 | METAL OXIDE | 33 | 5% | 3W | F |
| R1466 | 1-216-475-11 | METAL OXIDE | 120 | 5% | 3W | F |

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| REF. NO. | PART NO. | DESCRIPTION | REMARK |
|---|---|---|---|
| | | MISCELLANEOUS | |
| | | ********** | |
| ⚠ | 1-223-925-12 | RESISTOR ASSY (HIGH-VOLTAGE) | |
| ⚠ | 1-451-454-11 | DEFLECTION YOKE (R) (G) | |
| ⚠ | 1-451-455-21 | DEFLECTION YOKE (B) | |
| | 1-452-909-11 | MAGNET ASSY, 4 POLE | |
| | 1-505-378-11 | SPEAKER (10CM) | |
| | 1-556-945-21 | CABLE, P-P | |
| * | 1-557-056-41 | CABLE, P-P | |
| ⚠ | 1-769-837-11 | CORD, POWER(WITH NOISE FILTER) (7.0A/125V) | |
| | 8-598-414-00 | ANTENNA SWITCH AS-2F | |
| ⚠ | 8-598-955-11 | BLOCK ASSY, HIGH-VOLTAGE | |
| ⚠ | 8-733-495-05 | PICTURE TUBE 07MAC2(B) (LONG NECK) (GA) (46C36) | |
| ⚠ | 8-733-496-05 | PICTURE TUBE 07MAC2(R) (LONG NECK) (GA) (46C36) | |
| ⚠ | 8-733-497-05 | PICTURE TUBE 07MAC3(B) (LONG NECK) (GA) (48S35/53S35) | |
| ⚠ | 8-733-498-05 | PICTURE TUBE 07MAC3(R) (LONG NECK) (GA) (48S35/53S35) | |
| ⚠ | 8-733-507-05 | PICTURE TUBE 07MAC4(B) (61S35) | |
| ⚠ | 8-733-508-05 | PICTURE TUBE 07MAC4(R) (61S35) | |
| ⚠ | 8-733-518-05 | PICTURE TUBE 07MAC2(G)(GC LENS) | |

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| REF. NO. | PART NO. | DESCRIPTION |
|---|---|---|
| | | ACCESSORIES AND PACKING MATERIALS |
| | | ********** |
| | 3-859-371-31 | MANUAL, INSTRUCTION |
| | 3-701-627-00 | BAG, POLYETHYLENE |
| | 3-859-371-11 | MANUAL, INSTRUCTION (61S35) |
| | 3-859-371-31 | MANUAL, INSTRUCTION (46C36) |
| * | 4-037-674-01 | BOARD, TOP (48S35) |
| * | 4-041-426-01 | BAG, PROTECTION (except 61S35) |
| * | 4-041-428-01 | BAG, POLYETHYLENE (61S35) |
| * | 4-042-463-01 | SHEET, PROTECTION |
| * | 4-047-555-01 | PLATE, TOP (61S35) |
| * | 4-047-774-01 | PLATE, TOP (46C36/53S35) |
| * | 4-056-291-01 | INDIVIDUAL CARTON (53S35) |
| * | 4-056-292-01 | CUSHION (UPPER) (ASSY) (53S35) |
| * | 4-056-293-01 | CUSHION (LOWER) (ASSY) (53S35) |
| * | 4-056-298-01 | PLATE, BOTTOM (53S35) |
| * | 4-056-300-01 | TRAY (53S35) |
| * | 4-057-642-01 | CUSHION (UPPER) (ASSY) (61S35) |
| * | 4-057-643-01 | CUSHION (LOWER) (ASSY) (61S35) |
| * | 4-057-648-01 | INDIVIDUAL CARTON (61S35) |
| * | 4-057-649-01 | TRAY (61S35) |
| * | 4-057-650-01 | BOARD, BOTTOM (61S35) |
| * | 4-057-651-01 | CUSHION (UPPER) (ASSY) (48S35) |
| * | 4-057-652-01 | CUSHION (LOWER) (ASSY) (48S35) |
| * | 4-057-657-01 | INDIVIDUAL CARTON (48S35) |
| * | 4-057-658-01 | TRAY (48S35) |
| * | 4-057-659-01 | BOARD, BOTTOM (48S35) |
| | | REMOTE COMMANDER |
| | | ********** |
| | 1-473-749-31 | REMOTE COMMANDER (RM-Y136A) |
| | 4-978-977-01 | POCKET, COVER (FOR RM-Y136A) |

Sony Corporation
Display Company
Quality Engineering Dept.

9-965-144-01

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